THE

AMERICAN FARMER,

AND

SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . *Virg.*

Vol. I. **BALTIMORE, FEBRUARY, 1846.** **No. 8**

REMOVAL.

The counting room of the "AMERICAN FARMER" is removed to No. 122 BALTIMORE STREET, *2d door west from the N. W. corner of North-st. and adjoining the new Jarvis building, (formerly occupied as the counting room of the Baltimore Patriot,)*—where the Publisher would be happy to receive the visits of his friends and patrons from the country,—and is prepared to furnish them with the various new publications, literary and agricultural, as they appear, having connected a Book, Stationary and Seed Store with his printing and publishing business.

A new prospectus of the "Farmer" has been issued, in which the publisher, in order the more extensively to circulate his journal, offers the following

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☞-The *Farmer* is published on the 1st of every month, at **$1 per Annum**—each volume embraces upwards of 400 large 8vo pages—thus giving a vast amount of valuable reading matter, for a very small sum.

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Publisher American Farmer, No. 122 Baltimore street, 2d door west of North street.

WORK FOR FEBRUARY.

In our *chat* of last month under this head, we congratulated our brethren of the Plough, upon the cheering prospects which were before them of realizing the current year remunerating prices for the surplus products of their grain crops—since then, a cloud has come over the spirit of our dream. The more recent news from Europe bringing the unwelcome tidings that the price of breadstuffs, as well as provisions generally, had fallen in price there, has depressed prices here, and, for the present, put a *chill* upon those prospects which carried so thrilling a feeling to our own as well as to the bosoms of the Agricultural community throughout the broad expanse of our land. These sudden elevations and depressions in the value of the products of labor, where they last but for a brief period, never tend to good, and where they are based on no more solid foundation than that hope which begets the desire of speculation, are peculiarly calculated to do evil. The first news from England which told of short grain crops and a shorter potato one, brought also the news that flour had advanced a shilling a barrel, and that owing to the short crop of Potatoes in Ireland, a famine was expected through that land of song and courage. Upon these *data*, the *fever* of speculation was not only warmed into life in the Atlantic seaports, but impelled onward with Telegraphic force and swiftness, through every vale, and over every mountain, so that in a few short days all in the shape of provisions went up from the depth of depression, until it reached a summit height, which soon realized the "fixed fact" in the speculative mind, that a rise of a *shilling* a barrel in England would not justify one of a *dollar* here, and that therefore the flour bought at that rate of appreciation beyond the recent settled price could not be shipped to England. This sober reflection—this startling truth—brought the speculators up all standing—made them *chary*—and, as a consequence, holders had, from day to day, to submit to less prices, and even at reductions but few large purchasers were to be found, while those who had outstripped the wind in purchase-making—in taking in the flats—had to ponder over warehouses filled under circumstances which promised nothing but loss upon loss. In this state of affairs, steam-packet after steam-packet came, but brought no tidings of famine—none of advance in the prices of breadstuffs; but on the contrary, told of slight fallings off from former ones, thus blighting the hopes of those who had prematurely suffered themselves, without just foundation, to be hurried into a speculating mania, and who have now to realize the difference betwen *loss* and *profit*.

From the best views we have been able to arrive

at, we are inclined to the belief, that as the first rapid advance was without any just grounds, so is the present depression without reasonable cause, as we believe still, that the crops in Europe both of breadstuffs and potatoes are greatly below the demands of consumption, and that the indisposition to buy in England—the inactivity in the market—arises out of the uncertainty existing there as to the action of the government with regard to the corn laws. If we be right in this suggestion, we may be permitted to express the opinion that there is every prospect that those who have grain to sell will find a good market and fair prices for it before the occurrence of another harvest.

Passing from these speculations upon the products of the last year, let us turn our attention to the *labors* of the current one, and endeavor to find what is now to be attended to

ON THE FARM.

Winter Ploughing.—It has been our province many a time and oft to recommend that all stiff clays intended for spring crops should be ploughed up during winter, and we shall now renew that recommendation, and repeat the admonition that no such ground should be ploughed when in a wet state.

Working Horses, Mules, and Oxen.—These respective kinds of working beasts should receive additional care, in order that they may be in a condition in the spring to meet the increased obligations of labor which, from the very nature of things, will be imposed upon them. And while we thus commend them to the kindness of their owners, we will make the economic remark that *three* bushels of grain fed in *meal* will go as far as *four* fed without reduction.

Fire Wood.—No one should delay getting into his yard as much fire wood as will last from now until next fall, so that the horses may not be detached from the plough during the busy field season.

Fencing and Building Timber.—If a full supply has not already been obtained, it should be forthwith.

Gates, Bars and Fences.—Let these all be examined and put in tip-top order, without any unnecessary delay.

Barns and Outbuildings.—These should all be carefully examined while your force is still uncalled to the more active duties of the field, and wherever repairs may be needed they should be made—and when these shall have been completed, let the white-wash brush do its part, so that the way-faring man as he passes the road in sight of your mansion may have occasion to remark, that "there lives a farmer or planter, who is regardful of appearances."

Poultry and Poultry Houses.—Provide your hens with lime—clean out your hen houses, white-wash them inside and out, feed your hens liberally and give them *lime* and sand, or ashes, and they in return will afford you an early supply of eggs and chickens.

Milch Cows.—This and the ensuing month are very trying upon cattle generally, but upon none more so than upon milch cows, therefore see that yours receive increased attention, a plentiful supply of food, that they be rubbed down daily, have warm and dry lodgings, and twice a week receive a gill of salt each, or the same quantity of salt and ashes, or salt and lime—and that they be regularly watered twice a day.

Manure Making.—Exert your best energies to accumulate manure between this and hauling out time. If your teams are not otherwise engaged, occupy them daily in hauling the materials for making manure—let your woods and every other source of supply be resorted to, haul what you may procure into your cattle yards, spread it over their surface, so that it may absorb the voidings of your stock, and thus provide you with a stock of fertilizing materials for your spring crops. Two active hands and team thus employed, and looked after, would daily add, as much manure to your pile as would enrich an acre of ground, and add a hundred per cent to its productive capacity, and surely this force could not be better or more profitably employed.

Young Stock of all kinds, should receive increased allowances of good substantial fare, and be provided with the means of lodging dry and reasonably warm.

Tobacco.—This great staple of so many planters deserves a passing notice. It will soon be time to be providing the plant-beds, and we need not add that too much care cannot be taken to see that every essential in their preparation should be observed.

Breeding Sows and store Hogs.—Let these get an addition to their daily allowances—provide them with warm, dry lodgings, and give them ample supplies of materials to convert into manure, not forgetting that charcoal and rotten wood, is essential to their health, and that a *rubbing* post is conducive also to the same end.

Tools, Implements of Husbandry, Carts & Wagons.—All these should be thoroughly examined and repaired. Don't wait until they may be wanted, to make the examination, but do it without delay, as should you not do so now, it may so happen that when you may want to use some one of them, you may find to your regret and disappointment that you will have to send it some miles to a plough-maker or wheelwright, and have to wait for days before you can commence your work. Save yourself this vexation by attending to our text now.

Pastures.—If you have any pastures that you do not wish to cultivate next spring, spread a bushel of plaster on every acre as soon as possible, the sooner the better, and keep your cattle off it till the middle of May, and it will in the abundance of the grass repay you ten fold for the price of the plaster. Even old fields by such an application may be converted into good pastures.

Before we conclude this conversation, we will remark, that every farmer and planter will consult his interest by providing himself with an ample supply of farming tools and implements, and that each should take a pride in not being compelled to depend upon his neighbor or neighbors for any implement neces-

sary to carry on the operations of his estate,—for while each should take pleasure in lending, it should be equally his pleasure to place himself beyond the necessity of being a borrower.

Oats.—We wish to impress this fact upon our readers' minds—the earlier this crop is got in after the ground is in a fit condition to be put into good order, the greater is the chance of a handsome yield of grain.

Barley.—This grain is not sufficiently cultivated in several of the States, and particularly in Maryland. It will yield 75 per cent more than Rye, commands a better price on an average of years, is a more certain crop, and is equally well adapted for horse feed. Then why is it so neglected?

Madder.—Will some of our readers who have low, moist, rich ground, make an experiment this spring of an acre or two of madder? They should not be deterred because it takes three seasons to bring it to maturity, as it will ultimately yield a handsome profit.

Guano.—Those who desire to make experiments in this manure should take an early opportunity to obtain a supply. We have said experiments, though we need not, for it has already established its reputation as a powerful fertilizer.

Green Wood.—A cord of green wood is said to contain 1443 pounds of water, so that in hauling it in that state adds that weight to the burthen of the team, a consideration worth attending to.

BOMMER'S MANURE.

The testimony which is presented in the annexed note, which we copy from the Boston Cultivator, accords with the experience of some of the best agriculturists of this State, and from our knowledge of the facts connected with the method, we have no hesitation in recommending it to those who will take the trouble to follow implicitly the directions given in the book.

MESSRS. EDITORS:—I have tested Bommer's patent method of making manure, and am satisfied that it is a valuable improvement. If the farmer will observe due regard to economy in his fixtures and preparations for manufacturing manure on Bommer's plan, I am convinced that he will find himself abundantly repaid for the outlay. Manure of the best quality, and of any quantity, may be cheaply and expeditiously manufactured by the process. Any farmer, who will purchase the method, and will faithfully use it, will be amply compensated for every expense; and no one, who will devote to it proper attention, is under any necessity of remaining destitute of that supply of manure which his wants require. ALFRED HARGER.

Oxford, Ct. July 1, '45.

An excellent liquid cement is made of glue two parts, and vinegar two parts. Dissolve the glue by placing the vessel containing the ingredients in hot water, and then stir in one part of alcohol.

DR. MUSE'S ADDRESS.

Address to the Agricultural Society, of New Castle Co., at the Tenth Annual Meeting, assembled at Wilmington, Del., on September 18th, 1845, delivered at the request of the Society, by Joseph E. Muse, A. M. M. D. of Maryland.

MR. PRESIDENT AND MEMBERS OF THE AGRICULTURAL SOCIETY OF NEW CASTLE COUNTY:

The position which I have now the honor to occupy, in compliance with the invitation of your Society, courteously communicated, through your presiding officer, imposes upon me a task, so full of interest, so various, and so comprehensive, that I approach it with diffidence and distrust, indeed, with a consciousness of my inability to do justice to the cause which has been confided to my charge, the great, the all important cause of Agriculture; one, which has been so ably pleaded in this place, on former and similar occasions, by advocates so competent to perform the duty, that I would encounter the difficulty, only with the knowledge, that I am addressing myself to *congenerous* associates—conspicuous too for their liberality, as well as their *intelligence and learning*, and who, though they may differ in sentiment, will recognize the unity and honesty of *purpose and motive*, as palliative for errors, into which I may have fallen in practice, or in theory.

With this reliance, and with this appeal to the highly intellectual audience, before which I have the honor to appear, I will proceed in the most cursory manner possible, to discuss, in a general and perhaps, irregular method, some of the most interesting principles of the practice and theory of agriculture, that occur to me, as appropriate on this occasion.

The object in view of your Society, the advancement of the agricultural interests, is—"consensu omnium"—paramount to all other human objects, and that the means you have adopted, of associating the *moral*, intellectual and physical forces of your community, are the most potent and effective for its accomplishment, it requires no effort to perceive.

By the mutual interchange, comparison and free communication of the *results, qualities and properties*, that each member may have witnessed, an aggregate knowledge of the true character of things, and of modes, is obtained in a few years, which, under an isolated individual exertion of the best faculties, would require a fearful portion of his most active existence.

The period has long since elapsed, when a discourse upon the varied importance and dignity of agriculture, was called for to wipe off the stigma of its low and subordinate condition, to stimulate the farmer to action, to fortify his injured feelings, when necessity may have compelled him to adopt a pursuit against which his pride revolted.

The period has arrived, happily for mankind, when the "Title" of "Farmer," and his "office," confer honor upon the incumbent, upon the highest order and ranks of mankind, in Europe, America, and in all the civilized regions of the globe.

The politician, the jurist, the physician, the theologian, the man of science, and the man of wealth—these all, worship at the shrine of "Ceres," whose potent charms and benefactions to man, the tasteful, transported classic chants in fluent song—"Cereris sunt omnia munus."

In the employment of agriculture, in its various branches—about fourteen millions, in sixteen of the white population of the United States, are computed to be engaged:—at least two hundred millions of men expend their daily toil, in this occupation:—and a thousand millions, are dependent on it, for their very sustenance; indeed, the generality of mankind, in all the regions of civilized society, are in the practice of *this profession*, which we are now called upon to *advocate:*—it wants no *advocacy*, but the internal evidences it bears in its fruits, of its own merits, its honor, its dignity, and its utility.

How impressive of these truths, the instance we have here presented before us, in this beautiful Hall, in the evidences of refined taste on the part of the ladies, displayed in the rich and fascinating wreathes of flowers and baskets of luscious fruits which Flora and Pomona have consigned to their especial charge, as fit emblems of their native, inherent innocence, purity and beauty—with the practical testimony of their economy and industry displayed in the various domestic manufactures, exhibited on the enviable *arena* of friendly and patriotic competition, conferring honor upon their fair authors, and imparting to every generous mind a glow of conscious delight and gratification; this portion of the scene alone, offers an ample equivalent for the cost and trouble of your demonstration.

How impressive, too, the example before us—in the assemblage of so much talent, energy and enterprise, evinced in the spirit, with which this Institution, "The Agricultural Society of New Castle County," has been founded and sustained, and the animating zeal, with which, this, its tenth anniversary, is so effectively and ardently characterized, in the exhibition of improved breeds of Horses, Cattle, Sheep and Swine, and its various implements for rural and other purposes, highly creditable to their inventors and manufacturers.

But how, and why, has this once reviled vocation, attained its present ascendancy, in the universal assent of civilized man?

The solution of this problem, is to be found in the cultivation of the *science*, or rather, of the *many sciences*, with which it is intimately connected—Chemistry, Physiology, Botany, Mineralogy, Entomology—these are its *near correlatives*, its cognate branches, without whose assistance invoked, agriculture would never have risen to its present elevated position in the grade of human pursuits.

But, the whole round of the physical sciences, the whole scope of the material world, *organic* and *inorganic*, these all, are its friends and connexions; by propitiating this extensive family, the merited influence is accomplished which elevates agriculture to its true dignity, supreme above all other pursuits, which man, in the fertility of his genius, has ever essayed from the earliest epoch of creation.

The "Science of *Material Bodies*," or "*Physics*," was held by the philosophic Aristotle, as *first*, in the order of studies, that of *mind*, emphatically called by him "*Metaphysics*," as *secondary* to it.

By that first order of human inquiry, cherished as a vital principle, by research and developement of the mysterious and sublime operations of the God of nature, which, half a century ago, where for the most part, concealed from the eye of man, they have been exposed to the view of the present generation, the veil of "*Isis*" has been removed, and the inquisitive mind is rivetted in wonder and amazement upon the *brilliant Panorama*, exhibiting the magnificent theatre of physical creation, heretofore enveloped in utter *impenetrable darkness.*

By this inestimable gift of providence, a new era has arrived, a rich banquet, an intellectual feast, is open to all who have a taste to partake of the luxurious repast, presented before them.

By this Divine favor, all nature is exposed to our view—her stupendous fabric, is divested of its complexity—its members are individualized—its material elements are disclosed—mystery vanishes, and man is enabled by the exercise of his superior faculties—to master all that surrounds him—to apply the machinery, and its parts, its endless variety, for his comfort, convenience and happiness.

Throughout the whole catalogue of human employment, the sciences have contributed to the improvement of the arts; nor, has any one of them, received the fostering influence, more conspicuously, than agriculture; and in the language of the pious apostrophe of a former disciple in the great school of nature, inspired with the fervor of his pursuit, we may honestly exclaim "assist us, our Heavenly Father, with the light of that reason, with which thou enlightenest the world."

Yet, many are to be found, who denounce the lights of science, upon agriculture, under the *odious anathema* of "Book-learning;" this prejudice arises from a vain conceit of *self-sufficiency*—originating in *ignorance profound;* the blind man, who has lived in utter darkness is not conscious of the blessings of the solar beams, and Franklin, I think, has somewhere said, the larger the circumference of light, the greater that of darkness which surrounds us; it is true of those on whom the lights of science have never glimmered—they are not aware of the *fatal darkness* in which their faculties are shrouded.

Among the kindred sciences, chemistry and physiology may be placed, in the first rank of importance: the one teaching the *demands* of the plant; the other, its *supply;* by the one we learn the peculiar organism of the plant, its structure, functional means and purposes, its absorption, circulation, secretion, and excretion; by the other, we are instructed, in the properties of its fluids, and its solids—and we deduce therefrom, a knowledge of the elementary materials, essential to its growth and sustenance; one family may need more oxygen—another more hydrogen, or carbon, as acid, or oil may be the chief proximate principle in this product;—one may require a base of soda; another, of potash, lime, or magnesia; which, chemical analysis will indicate; hence, the cultivator is not groping in the dark, he has cast his eyes upon the magnificent theatre, and he feels its luminous influence; he knows the food which his plants require, he supplies the elements—they digest, and elaborate them, for their growth, and his subsistence.

By geology and mineralogy, he will adapt his crop to his soil; or, he will modify it, in its physical properties, and relations, to suit his purposes: though extremely useful, and formerly considered fundamentally important—yet, under modern science, and culture, the *physical properties* of the soil are considered quite subordinate to its *chemical constitution.*

The justly celebrated Liebig, who, by unparalleled, herculean research, has made a new era in organic chemistry; and his able successor and expositor, Johnson, following in his mazy, and intricate path, have unsettled former opinions, upon this, as well as upon many other subjects of physical science; they have demonstrated, beyond the power of refutation, the superior importance of an accurate knowledge of the *chemical* constitution of the soil, of that of its *organic* as well as its *inorganic* materials; and they have revealed mysterious nature in many of

her most hidden recesses, to the infinite benefit of both animal and vegetable health and life, and to their own immortal honor.

Meteorology—or, that branch of it which treats of the atmosphere and its phenomena as connected with the *weather*, has in all ages engaged the attention of mankind, for its close alliance with their safety, subsistence and comfort; but, it is only within the short period of general inquiry, that accumulated facts of atmospheric phenomena, have fairly classed it among the sciences.

By the discovery and invention of some necessary instruments, the barometer, thermometer, electrometer and hygrometer, this science has been recently advancing, though slowly; it will probably, at a future period, stand pre-eminent for its vital services to man, in all his varied pursuits; and most especially, to the *Farmer*, and the *Navigator*, whose very subsistence and welfare are connected with it; and it is the moral duty of all, who possess the means, to promote it.

And last, though not least, for its essential conservatory benefits, is the despised and neglected "Entomology"—to this, we may apply the classic monition, "hoc opus, hoc studium, parvi properemus et ampli;" and we should adopt it, as we would preserve the fruits of our labors.

Almost annually, are *exogenous* insects flocking upon us; and our *natives* are multiplying in numbers:—from all sections of our country, we hear of *new insects*, the *outposts of hostile armies*, threatening invasion; some assailing the roots, some the leaves, and others the grain of our staple crops.

A new variety of the ravenous "Calandra," has, the present year, appeared in some of our wheat fields; it subsists on the grain, and was discovered on the head, in active operation, a few weeks before harvest; it differs from the "Calandra Granaria," with which the Middle and Southern States, have been familiar, by its attacks upon our *Grain*, when *housed*.

This new insect is smaller than the "Granaria"—its form, that of a cone, whose apex is a very short rostrum, its color is a silver gray, with two black spots on each elytrum:—the "Granaria" is a long slender ellipse, dusky red color and furrowed elytra.

Another new insect has made its appearance in the larva state, this season, singularly, suddenly, and exclusively on two adjoining fields, near Cambridge, in numbers incalculable, literally covering the lands, and the wheat, and leaving not a *blade* on the stock; but not attacking the *grain;* trenches were dug to intercept their passage to the young corn, which they would probably have exterminated; and an earlier visit might have been fatal to the wheat crop; I obtained some of their transformations; they are a variety of the well known "Cut Worm," the "Phalena Devastator"—but larger and of a lighter color.

This subject, gentlemen, "entomology," is one of deep interest to the farmer, although despised and neglected, perhaps from the apparent insignificance of its objects—yet, when the magnitude of their operations is duly appreciated, and the variety, frequency and fatality of their attacks upon our staple, and other crops, they become worthy of our notice, as respects their general and peculiar economy, by which alone, we may entertain a reasonable hope of abating, or preventing their destructive ravages.

To urge the necessity of the various branches of physical science, in connection with agriculture, before this intelligent audience, would be an act of supererogation;—to prescribe the best modes and measures, in agricultural practice, as I might conceive them, when I behold the surrounding country, as far as the eye can reach, bespeaking a superior grade of practice, under the best modifications of science, would be presumptuous—yet, I will briefly notice some mooted points, which relate to *agriculture in general*, and upon which I may have collected unquestionable facts—or, such as *induction* may infallibly settle.

A question has been started upon very eminent authority, of the truth of the doctrine of "Rotation," and of that of the "supposed necessity of a change of seed."

One of my predecessors, in this highly honorable station, which I now occupy, the Hon. James M. Garnett, has controverted the truth, or force of this doctrine, in a correspondence, a few years past, with the "Albany Cultivator"—which lately attracted my attention; and moreover, these sentiments are, to my knowledge, entertained by *many* intelligent Farmers, and *therefore* become worthy of a serious notice.

Mr. Garnett adduced as evidence against that doctrine, the universal practice in Accomac and Northampton, Virginia; where he says "two white crops of grain, corn and oats, constantly follow each other every year, without perceptible deterioration, as the owners all assert; and without any *return* to the land, except the dead natural growth of the Pea"—he adds—"in several other parts of Virginia, he has known similar practice and results—and, indeed the growth of *corn alone, without rest*, for twenty years—and the crops *undiminished;*" "also, of *garden vegetables*, the *same seed*, in the *same squares*, for eighteen years, unimpaired."

But for this able and highly distinguished authority, I would not hold this question worthy of discussion, before this assemblage of skill and science.

The facts stated, are no doubt correct, but circumstances unknown to him, may have existed, to occasion the *paradox*.

A brief view of this subject, may conclude the question and remove the erroneous impression.

Different genera and species of plants, notoriously contain different proximate principles—composed of different elementary materials—or, different proportions of them—supplied by the *soil*—by *putrescent manures*—and by the *atmosphere*—a truth undeniably established by chemical analysis, as well as obvious to all who enjoy the two natural senses of *taste* and *smell*.

The inorganic portion of the supplies, is to be found in the *soil;* and the soil must contain them in quantity and variety, suited to the wants of the peculiar species of plant; or, the crop will perish:—when other plants, wanting other elements of nutriment, may find an ample supply, for their growth and maturity.

Though a different base may be substituted, as a vicarious and imperfect agent for the true one, which was absent, yet the plant in such case, will not flourish.

The organic elements are supplied by the putrescent manures and the atmosphere—and come within the scope of the same category, or class of conditions with the inorganic.

But, inasmuch as the *nutriment furnished* and *that appropriated* by the plant, must of necessity, be chemically identical; and different species contain different principles, it follows that one species continued in the same soil uninterruptedly, would consume and

exhaust the peculiar elements, or different proportions of them; and consequently, that a change, or alternation of species is an essential point of economy, in general culture—by which a "*quasi repose*," in the interval, is obtained for the recovery of the consumed materials of nutrition before the second series may have commenced:—this was a truth known in the days of the Mantuan Farmer, "sic quoque mutatis requiescunt fetibus arva."

For example—one group—the *leguminous*, as "Beans" and "Peas" require, according to Liebig, but a small portion of the alkalies; the culmiferous, as "wheat" and "oats" require much of the alkalies and phosphates; tobacco consumed much alkali and no phosphates.

From these examples, may be deduced a set of principles, unquestionably sound and in accordance with *rotation* and manifesting its necessity.

The climate too must be consulted in the selection of our crops: for instance, the "Beet" is more profitable in a cold climate; this root requires much *nitrogen;* and as Liebig states—the secretion of sugar will be diminished as the supply of this element may be wanting; and as the last product of animal decomposition is, in *cold* climates—"Ammonia," which is rapidly converted into "Nitric Acid," in the *warmer*, the *alkali* of the plant, will engross the *acid;* and the supply of nitrogen will consequently be deficient, and the "Saccharine" matter therefore not so abundant; hence a cold is more suitable to the Beet, than a warm climate; and as Chaptal has remarked, nitre in such cases, takes the place of sugar; which he says, is experienced in the Southern and warmer parts of France.

Holding in view these *principles*, the cultivator may mark his course in safety and confidence—he will adapt his crops to the climate and to the Chemical and Geological constitution of his soil, and he will distribute the alternations in consistence with these established laws, which the God of Nature has ordained and conferred on him, the faculty of reason to discover and to apply for his comfort and convenience.

The subject of manures is too copious for an ordinary address—yet, the extensive use of lime would seem to claim for it a passing remark.

Like others, I have used it in various modes and quantities—and I have been convinced that it may be *over-used:*—by five hundred bushels to the acre twenty years ago, a plat of six acres of my field was rendered unprofitable for many years, until I had literally buried it with rich earthy and putrescent manures—and it is not now as good as these should have made it.

Dana, in his Manual says, "Lime changes vegetable fibre into soluble geine—but applied in excess it forms an insoluble salt;" I have no doubt that in my case, it was in excess.

It is generally admitted, that all the alkaline, saline and other mineral manures, render the humus, or decomposing vegetable materials *soluble*, which are in themselves *insoluble;* the quantity requisite is inconceivably small either for this purpose, or for consumption by the plant; yet it is absolutely *essential* for its *chemical action*, as well as for a portion of *physical nutriment*, and in quantity and kind, it must be supplied—either lime, or any other that the special nature of the plant may require; but analysis of the ashes prove that the demand has been infinitesimally minute.

Practically I have found one hundred bushels of lime sufficient for well manured clay; and for a light soil—say 85 per cent. of silica, and moderately manured, one half that quantity, I hold to be a sufficient dose: and I am satisfied by frequent observation, that the chief rule should be an *equivalent* of the lime, for *humus* in the soil—and that much more may be *pro tanto*, pernicious.

Lord Kames, in his Gentleman Farmer, says "an overdose of lime, renders land so hard as to be unfit for vegetation where the land is not well drained—or, where much rain has fallen and lingered on the land after the lime has been applied." Hence in a large portion of our lands, chiefly on the Atlantic plain—embracing nearly the whole of Delaware and the Eastern section of Maryland, on both sides of the Chesapeake, this disaster might frequently occur.

The soluble effects of lime, in due proportion upon the insoluble humus of the soil, will hasten its *conversion* and *consumption*—and by the aid of *irrigation* will, without extravagant supplies of organic manures, soon exhaust the best soils, and render them unproductive.

Hence—irrigation—so highly extolled, I hold to be a measure of equivocal result; one of its chief effects, is a rapid decomposition of the vegetable substances in the soil, by means of the oxygen, held in solution by the water—and their conversion into humus; much of this humus is *insoluble*—and, by lime is rendered *soluble*—it follows then, a priori, that *irrigation*, freely practiced and assisted by the use of *lime*, would tend rapidly to the exhaustion of our soil.

When the Nile and the Ganges and some other rivers may perform this operation, without injury, or, indeed, with much benefit, nature has, with her known consistence, and infallible wisdom, loaded them with *putrescence* and with the *gaseous products*, nitrogen, oxygen and carbonic acid, in quantities unusual in other rivers, or running waters; these compensate the rapid consumption; but irrigating waters, in general, do not contain them.

Waters, holding in solution mineral substances, may be useful *quoad hoc;* yet, in any case, the water too long retained, will substitute a coarse, aquatic plant, for a more valuable species, and this tendency produced, will be difficult to be subdued.

To prevent, or remove this disposition to the coarse grasses, arising from an excessive retention of water, I have found *underdrains* more effectual than the "*sub-soil*" plough.

When the soil is super-imposed on a stratum of pan, or bed of impervious clay, the water necessarily accumulates upon the bed; and sub-soiling may afford a partial and temporary relief; but the loosened clay soon regains its natural position and density, and the good effect ceases; but, well constructed "*underdrains*," sunk deep into the bed, are very durable, and afford a free and capacious vent, eliciting, on a well known law of "hydraulics," the passage of the water, by the force of its draft, exerted upon the capillaries of the incumbent soil: My own comparative and practical results for several years, confirm these suggestions.

Returning from my digression, to *Manures*, Ashes are indispensable, where wheat, tobacco, or the grasses are in frequent cultivation, and especially, when these crops have been *forced*, as, by the use of gypsum; these plants require a large supply of alkalies, and the *greater*, *more frequent* and more *abundant* their growth, then the *greater* the *consumption* and *exhaustion* of these essential substances; and the greater the necessity of *ashes*, which contain them.

An instance in point, is occurring near Annapolis, on South and West rivers, where the lands have been rendered very productive, by gypsum, of wheat, tobacco and the grasses, all great consumers of the alkalies; putrescent manures, were considered by many unnecessary, as I have been informed, and not applied; the owners are now startled with the fact, that gypsum is losing its magic powers; Gypsum is a mere condiment; it may season, or it may concoct the food, and whet the appetite, but it can never supply the materials of nutrition; on the contrary, it will *lavish* and *consume* them.

Many new nostrums have been recently offered, as *manures*, or *substitutes; steeps*, and other *concentrated liquors* and *powders*, of various and possibly precarious repute.

With these I have not been so fortunate, in my few experiments as some others, who have reported their results; the unusual drouth may have operated to defeat me.

With Guano, on corn, I have had the best results, from the solution around the plant; on wheat, I will give it a fair and full trial the approaching season; it is unquestionably a rich manure; but the small quantity prescribed, will not, I fear, be competent to verify the promise, and the increase of its product, will not, I think, measure with the cost of a sufficient dose: its mixture with ashes or lime, as recommended by many of its advocates and venders, is wholly unphilosophic and unchemical; by either substance, its chief ingredient of fertility, ammonia, will be *liberated* and *lost*: by mixture with sulphate of iron, which I occasionally practised, this fertilizing substance is preserved, and its *deadly odor* is removed.

In the form of "*steeps*," to afford nutriment, or to prevent, or destroy insects, the Guano, the Hauterive solution and others have failed to perform *either purpose;* and I may, with truth, echo the sentiment of the classic farmer "semina vidi equidem multos medicare serentes, et nitro prius et nigra perfundere amurca," and with the like result "vidi lecta diu."

The famed Poudrette will realize its high repute: my experiments have been with about 100 bushels of this article, which I had prepared with the sulphate of iron, by the method of "Dumas," the great philosophic investigator of the marvellous works of Providence; with two spoons full to the hill of tobacco. I had astonishing effects, and am encouraged to manufacture it, on a larger scale, the ensuing year.

By a solution of this metallic salt, the sulphate of iron, the offensive odor of all decomposing organic bodies is immediately removed, under chemical laws, which may be unknown to many; and being useful to all, in a view to *pathology*, as well as *agriculture*, I will offer a few remarks on the subject.

This substance, the "Sulphate of Iron," is preferable to the sulphate of Lime, or the Chloride of Lime, as a "*disinfector;*" the sulphate of Lime, loses its force of the double affinity, or its tendency to exchange bases with the carbonate of ammonia, when it has become partially decomposed; and, necessarily it then ceases to perform the office of disinfection, and the chloride of lime so extensively used to correct the miasmatic and contagious air of hospitals, sewers and other filthy places, is extremely injurious to health; its chief agency, must be, through its "Chlorine" liberated by the carbonic acid, always present in such cases, uniting with its lime—and if there be more than an equivalent of the chlorine, for the ammoniacal product of the putrescent materials, its effects will be pernicious; Liebig has said "Chlorine destroys ammonia, and organic bodies, with much facility—but it exerts such an injurious influence upon the lungs, that it should never be used in places in which men breathe."

The "Metallic Salt," is liable to no such objection; the gases, escaping from the putrescent bodies, are the "ammoniacal" with "sulphur," "phosphorus" and "hydrogen," and the carbonic; which latter does not contribute to the odor; by the influence of their chemical relations, the sulphuric acid of the salt unites with the ammoniacal gas and renders it fixed and *inodorous*:—the sulphur, phosphorus and hydrogen unite with the iron of the salt, and become also *inodorous*, thus converting by a cheap and easy process offensive, deleterious bodies into unoffending and valuable materials, for the health, and subsistence of animal life.

A striking instance is here presented, in the phenomena developed, in this small department of the great laboratory of nature—of the divine attributes and plans of the Supreme Creator—and of the infinite wisdom and contrivance, with which, the minutest parts, are adapted to the perfection of the great fabric of the universe.

We behold, in the instance before us, organic bodies having performed their part, in the grave drama of life—decomposing—and *returning* to the common air, from whence they came, the elements with which it had furnished them, for a momentary existence; and these elements, again, in turn collected and elaborated through the *vegetable machinery*—again modified for *animal uses*—and by the *animal* received, refined and appropriated, to sustain, for a fleeting moment, the very *highest grade of organic life and being*—which is again resolved into its first elements, and changed into new forms, for a new series of physical *action and re-action*—making, by means of its *chemical energies*, an *endless cycle* of *organic creation and dissolution;* and thus demonstrating the marvellous truth, that *man* is but an *atmospheric compound—animated* through *Divine Agency*, by *physical* and *moral light*:—O Jehovah; quam ampla, et miranda sunt tua opera."

With "*Electricity*," as an excitant to vegetation, I have made some experiments, "atmospheric," and "terrestrial;" with the former, I have been very successful; with the latter, not so; it would avail nothing to recite them.

I have had another, on hand, by which I may, possibly, combine the powers of the thermo and hydro electric currents; no satisfactory results, are, as yet, obtained.

For a supply of manures, for many years, my chief reliance has been a compost, based on a stratum of swamp muck, covering the farm yard, and improved by suggestions, in Professor Jackson's "Geological Report;" on the stratum is thrown some hydrate of lime—next, a layer of stable manure and animal and vegetable refuse; alternately, and forking up the mass and sprinkling the surface, when forked, with a solution of sulphate of iron.

The rationale of this compost, is obvious:—By the bed of swamp muck, I obtain a large mass of fine insoluble humus—by the hydrate of lime, a solution of it is accomplished—the gaseous ammonia liberated from the stable, and other vegetable and animal materials, by the action of the lime, is partly fixed by the sulphate of iron, and the residue combines with the humus of the muck, and thus the nitrogen, the most essential principle of all manures, is well preserved and economized; and the other principles attained for small costs and trouble.

The subject of crops is necessarily, one of the first importance; in their selection, fitness of climate, soil, rotation, and market, are all essential conditions.

Plants, as well as animals, by a sanitory impulse, impressed by nature seek a suitable locality for their well being; by this impulse, different species seek not only different "HABITATIONS" in reference to climate—but, also, different "STATIONS" or PECULIAR localities. One group will flourish in a humid, another, in an arid soil. One in a river, or marsh, another, on the mountain top, one, in a siliceous, another, in an argillaceous soil, and all in infinite variety; in the selection of which, INSTINCT, more infallible than *reason*, will be their unerring guide; nor can the *will*, or, the *hand* of man control it.

Our climate, within a few years, has materially altered—and facts are frequently presented, that lead to the belief, that our "wheat" is under the impulsive force of *migration*, by means of this occurrence.

Our seasons are considerably changed, in point of time; the winter commences later, and it bears the character of "excessive," with its technical import of variable and frequent alternations of temperature: by the sudden changes of frost, and thaw, our wheat, and other winter crops are often injured; by the frequent expansion and contraction of the soil, the roots are thrown out of their bed, and exposed to the fatal action of the weather; the heat of summer finishes the work of destruction—the spring season having vanished, for several years, with its genial showers, giving vital energy to all organized beings; for many months follow alternate drouth and flood; a distribution of rain, unequal and local, and as fatal to vegetation in the one case as in the other; and, in the *present year*, our "corn" crops, realize this sad picture; but I commend to others, and myself, resort to my favorite maxim—"ne cede malis, sed contra audantior ito."

I have made many and expensive trials, to discover some new and better crops, but the fates have not favored my designs:—

My Cotton crops were successful, for two seasons, the next two proved them to be as precarious as our own; my Palma Christi, flourished well, but could not be harvested without much labor and loss, from its unequal ripening. The "Shipping Bean" so highly recommended, did not meet my views; and my experiments with "Madder" disappointed me; indeed, *this* crop has been relinquished in the South and West, where it has been largely cultivated.

My experiments in the growth of "Silk" (not the "tree speculation," which I always viewed as a bubble) were made under great advantages, and in much confidence, *on authority*:—Hence I bought every variety of "Reel," "Wheel" and "Shelf," which might make it perfect; fifty thousand worms were *safely shelved*, for the first year, and sportsman like, I doubled the hazard, upon the loss, annually, until I had reached nearly a million of worms, on the fourth year:—when I pronounced a final "*anathema abjuratory*"—against the whole concern—worms—authorities—and implements.

One other crop merits attention, one, whose "habitation"—"station"—and "market," all recommend it:—one that will give strength and activity to our teams and profusion to our dairies—and will adorn the hospitable board with the choicest viands. I mean the "*grasses;*"—for the favorable conditions of this crop, and its successful adoption in the County of New Castle, no stronger evidences can be offered, than those—its enumerated good fruits, so copiously presented, and enjoyed, on this Festal Anniversary.

With the growth, and manufacture of Spanish Tobacco—in a seven years experiment, I have found it a profitable crop—producing some years, on a few acres, a hundred thousand Segars, manufactured on my Farm, and commanding about fifteen dollars per thousand.

The "Spanish" Leaf, being much smaller than the "Common," six hundred pounds is considered a fair average, per acre—which, allowing the usual rate of fifteen pounds, for a thousand Segars, will make forty thousand Segars—and at the price named, they will amount to six hundred dollars; from which deduct the cost of manufacture—cultivation—boxing, and other expenses—and three hundred dollars will be left, for the nett profits of one acre.

Whatever be the kind of crop, the scale, on which it is attempted, should be small, in the ratio of our means; I have on a similar occasion, dwelt on this cardinal point of economy, in Maryland—where the fault of *over-cultivation* is prevalent;—the cost and labor of cultivating one acre of poor land, yielding five bushels of wheat, is equal, it will be admitted, to that of a rich acre, yielding twenty bushels;—but the *rich*, yielding four times as much as the *poor*, the cost in relation to the crops produced, will be as four to one, in favor of the rich acre; and the product, in the one case, being five bushels—say at one dollar per bushel, is five dollars—less four dollars for cost—equal one dollar *profit*.

In the rich acre, producing twenty dollars—less four for cost—equal sixteen dollars *profit*, or, about sixteen hundred per cent. in favor of the rich acre.

Finally, gentlemen, as a co-adjutor in the spacious field of agriculture—in that field, where the intricate and sublime works of nature, require to be studied and investigated—and where our labors, though often frustrated, by her inscrutable laws, are yet requited by moral—intellectual—and corporeal blessings—as an humble co-adjutor, I repeat, I offer the most cordial gratulations—on the many evidences presented here—before the eyes of the merest stranger—of the auspicious zeal—enterprise and perseverance, with which this tenth anniversary of the "Agricultural Society of New Castle County," has been so forcibly illustrated:—and with my best wishes, for their continued prosperity, individually, and corporately, I conclude my prolonged address.

EXTRAORDINARY SUCCESS IN FARMING.

The following, from the report of the Committee on Farms of the New Castle (Del.) Society, will be read with much interest, showing, as it does, the effects of well applied skill and industry, even whilst destitute of that which is ever deemed the "sinew" of war. Well may the committee say to their brethren of the County and State, "*go and do likewise.*"

To the Committe on Farms of the New Castle County Agricultural Society.

GENTLEMEN:—In competing for the valuable premium, offered by the Society for the best Farm, taking into consideration the former and present condition of said Farm, I proceed to give as correct a statement as my memory and a few notes taken from time to time will permit.

On the 4th March, 1834, I removed to Wheatland, which I had purchased of J. A. Bayard, on a credit of ten years, in 1832. This part of the Farm, which contained about 360 acres, is situated on Bohemia

Manor, partly in St. Georges' Hundred, New Castle County, and partly (about 30 acres) in Cecil County, Maryland. It was very poor at that time, having always been rented, from the first settlement of the country, (which, by the grave-stone on the original proprietor, Agustine Herman, was in 1669,) till the time of my purchase.

Wheatland, previous to my purchase, contained 524 acres, nearly all of which was tillable, there being no wood or other waste land upon the farm. It had always been worked upon the three field system, one of which was planted with corn, wheat was then sown in the standing corn after the fodder had been gathered, then after the wheat came off the stubble was pastured one year, without having any clover or other grass seed sown; the next year it was again planted with corn, and so on, with that impoverishing course; for which a fixed rent was demanded of 700 bushels of corn and 125 bushels of wheat —no oats were allowed to be sown. The 700 bushels of corn, at the present price of 40 cents per bushel, would amount to $280; the 125 bushels of wheat, at the present price, 90 cents, would be $112 50; together, $392 50, and this for the farm before any was sold off; but reduce it to the ratio of the present size of the farm, say about one-third off, and you have a rent of $260, out of which the repairs were to be paid. Such was the exhausted state of the land, that it scarcely paid six per cent., (after deducting for repairs,) on $4,100, the amount of purchase money that I was charged with.

For several years I got but poor returns for my labor, not having the means or energy to improve, till 1837. In that year I concluded to run my face, and make an effort towards improvement with lime, and up to 1839, I had put on about 12,000 bushels, at a cost at the kilns of from 20 to 22 cents per bushel. By 1840 I had seen and felt the good effects of the lime, and determined to complete the first dressing of all my arable lands, as well as my Cote Brilliant Farm, (better known as Gum Bush,) of 380 acres, which I had also purchased at a credit for less than $8 per acre, and was situated near by, as Wheatland, my homestead. In that year (1840) I purchased 10,000 bushels of lime at a cost of 17 cents per bushel, delivered at the landing of the Canal, distant about four miles from the farms. Here I again had to run my face, but this time I went to the lime burners on Schuylkill, where I would advise all honest Delawarians that have not limed, to go at once, for to this day honest Delaware faces are in good repute there. They are no repudiators. And while on the subject of lime, I will state that one lime burner (William Mogee) has sold in New Castle County within the last six months 145,000 bushels of lime, of which 90,000 bushels have been delivered.

Previous to 1840 I had sown clover and other grass seeds pretty freely, one year as much as 45 bushels, and the same year I purchased 20 tons of plaster. At first I got but poor return even for my lime, I suppose for want of vegetable matter, but when my clover had grown so as to make a swarth or lay for turning under, my crops began to increase even beyond my expectation. The crops for the year 1844, which closed with my last wheat crop, were all got out and sold by the 25th July, 1845, producing the following results:

Oat crop light—not many sown—crop sold for $209—rental share,	$104 50
Corn tillage large—97 acres, including an orchard of 4 acres not well tilled, produced 3,000 bushels—rental share 1500 bushels, at 40 cents,	600 00
The wheat crop amounted to 2,820 bushels, exclusive of brock or rakings —the rental share one half, or say 1410 bushels, at 90 cents,	1269 00
Was grown on two fields one of which of 97 acres, was a clover lay well turned under, produced 1872 bushels, exclusive of brock which would have made this field amount to over 20 bushels to the acre.	1973 50
Add 64 bushels of brock, at 90 cents per bushel,	57 60
	$2031 10

The other field of wheat contained about 60 acres. The product of this field was 948 bushels, exclusive of rakings, or had they been included, the yield would have exceeded sixteen bushels to the acre. This field had been hard cropped, for the wheat followed corn, which corn had followed wheat stubble of the year previous, without manure or clover. Indeed this field had produced nine crops in twelve years, with but little manure at any time, it being farthest from the farm yard, and my plan is never to haul manure to the far side of the farm, whilst I have poor land near by. The principal help this field has had was 40 bushels of lime to the acre, put on in 1838; and two crops of clover turned under, and on a part of the field a crop of oats was turned under, that had been injured by the hail storm of 1840.

The rental value of these three crops of oats, corn and wheat may then be set down at $2031 10, the usage of this part of the country being one half of the grain for rent. In the upper Hundreds near the Manufactories, an additional amount in money would be obtained for the privileges of dairy, poultry, eggs, &c.

The rental value, as above set forth, you will perceive at a glance, now pays an interest of six per cent. on a capital of $33,850. The original cost of the farm, or investment was, as you will also perceive, $4,100; (and that a credit.) I will leave you, gentlemen, to calculate the yearly dividends on the investment.

The cost of the 40 bushels of lime having long since been reimbursed by the increased crops previous to this year, the amount of which has just been set forth, I have some profits or proceeds from this farm in the way of raising stock, dairy, &c., some of which is exhibited this day and has been every year, but one or two since the existence of this Society, the value of some which I find by turning to some memorandums. I will give you one entire leaf.

A Lady in Trouble.

May 11, 1844.—Mrs. Jones has this week made and printed 48 lbs. of butter. The trouble is the want of a near cash market. Our part of the country being strictly agricultural, there are but few others than producers to consume our butter, even in our little villages; consequently it would not command ten cents per pound cash, we being too remote from market—more than twenty-five miles from the manufacturing and consuming district of our county, where on the first of the month Butter brought twenty five cents cash in the market.

The stock from which this butter was made, consists of eight cows, all *natives of Delaware*, calved

and raised by myself, on Wheatland. I give their ages and names, according to seniority:

No. 1,	Black Maria,	calved May 8, '33—	last calf,		Jan. 2, '44.
" 2,	Yellow Flower,	" June 10. '36	"	"	June 8, '43.
" 3,	Sun Flower,	" Apr. 22, '39	"	"	Mar. 16, '43.
" 4,	Cora,	" June 28, '39	"	"	Apr. 19, '42.
" 5,	Cauliflower,	" May 26, '40	"	"	Mar. 29, '43.
" 6,	May Flower,	" May 8, '41	"	"	May 9, '43.
" 7,	Blossom,	" June 19, '41	"	"	Feb. 4, '44.
" 8,	Cherry,	" June 23, '42	"	"	Apr. 17, '44.

Making 6 lbs. each per week, at an average of 44 weeks, 4 days each from calving. These cows had been well wintered and just turned out on a splendid field of clover.

I find one other memorandum that should have preceded the above; but here it is:

June 4, 1840.—Commenced milking Yellow Flower three times a day, with a view of ascertaining the amount of milk and butter she would give per day, for one week, from the 4th to the 10th of June inclusive.

Days.	Morning.	Noon.	Evening.	Quarts.
1	9	8½	9	26½
2	8½	8½	9	26
3	8	7	8	23
4	8	8	7	23
5	8	8	9	25
6	10	8	7	25
7	10	9	7½	26½

On Monday the 7th, we churned the two first days milkings, and the yield in butter was 4½ lbs., equal to 2¼ per day, or 15¾ per week. The weather being so warm, (the thermometer standing at 93,) we declined further trial at this time, believing, as we did, that it would not be doing justice to the cow to press the trial while it was so warm as to prevent the cow from feeding as she ought.

YET ANOTHER.

May 3, 1844.—This day on my return home from the Baltimore Convention, accompanied by two neighbors, Joshua Clayton, Esq. and Dr. J. S. Naudain, we found Mrs. Jones preparing to weigh the butter of one day's milking of Yellow Flower. The result was 1 lb. 2 oz. and the weight of two cents. Upon our all taking a drink of butter milk, Dr. Naudain declared there was butter enough in the milk to have made up the full quarter.

The milk of this cow was measured for several days together, with about the same results, yielding about 14 quarts per day; (she was milked only twice each day in this trial—morning and evening;) and as 14 quarts per day was the amount of milk from which this trial of butter was made, we did not think it worth while to incur the trouble of continuing the churning. I was led to this experiment, by seeing a statement in the April No. of the Farmers' Cabinet, of the extraordinary cow of Mr. Frost, of England. She having made 1½ lbs. of butter each day for four years. The Yellow Flower had then been giving milk about 4 years, or since the birth of her second calf, Cauliflower, and at the time of this trial was about 11 months from calving, having had her last calf 8th June, 1843; consequently she may be supposed to be in her lowest stage of milking. She has always been an annual calver, and always milked well up to calving; on two other occasions I have seen Mrs. Jones milk and measure, and each time she gave 16 quarts per day. Thus you see her lowest milking may be put down at 14 quarts.

Her greatest milking when fresh, 26 "

Her greatest yield of butter, 2¼ lbs.

" lowest " " 1¼ "

Averaging 1 lb. 10 oz. per day. Comparing with the best of any other country or nation.

She is still at the pail; but was much injured by driving up over twenty miles each way with a full udder of milk, in less than half a day, to the last Exhibition, and will, I fear, never give as much again. The drive caused *prolapsis uteri*, with other injury.

I have brought in this memorandum about the stock as a part and parcel of the farm; or, as the butcher would say, a kind of fifth quarter, and if we were near the manufacturing districts of the Brandywine or the city of Wilmington, this branch of our mixed husbandry, would be fully up to a fifth of the whole product, particularly when we take into calculation the calves, milk, butter, &c. Enough has been written to show that the rental proceeds of the farm, by good management, will now, at the present depressed prices of the products of the farmer (owing to the abundant crops,) yield a rent equal to the interest of one hundred dollars per acre, and yet we are but (in our infancy, I had like to have said,) just waking up from a Rip Van Winkle nap, in regard to Agricultural improvements. Our crops of corn are less than 40 bushels per acre, our wheat less than 20, and other crops in proportion, whilst from some improved spots of land, of the same natural good quality, 100 bushels of corn have been produced, 50 bushels of wheat—hay and everything of the ground suited to the climate in the same proportion. These results have been attained at the cost of only ordinary good tillage, with a rotation of crops and a dressing of not exceeding 50 bushels of lime, which can be had now at this point at 13½ cents per bushel, and I presume on any landing on the tide water, on either side of the Peninsula formed by the Chesapeake and Delaware Bays, for an average of three cents per bushel additional, and most, if not all the land of equal good quality with our own, in addition to which the average distance of all farms scarcely exceeds four miles from tide water. With all these advantages for the improvement of our land, and the market for our produce, from our proximity to the Eastern manufacturing districts and our own home market, shall we stop our improvement here, or shall we (not only we of Delaware, but our friends of Maryland, too,) go on shoulder to shoulder, (as we did on a former and more perilous occasion,) improving our soil until we make our lands produce more than the virgin soil of the far west? and shall we not also lend our best efforts to create and continue a good and constant home market? JOHN JONES.

For the American Farmer.

TO THE YOUNG FARMERS OF MARYLAND,

Essay No. 7

ON PRACTICAL AGRICULTURE.

ACCOUNTS.---Section II.

EXPLANATIONS,

AND REASONS WHY CERTAIN ITEMS SHOULD APPEAR IN CERTAIN ACCOUNTS.

To render the whole theory as clear as possible, we shall adhere to the imaginary entries, adopted in the first section; only adding such hereinafter, as may be necessary to illustrate the province of Loss and Profit account, preparatory to its final adjustment, by drawing off the balance sheet.

An *entry* in book-keeping, means the *initiatory* stage of a charge—a *minute*, or a *memorandum*,—for future, more careful transcription to the ledger; which is the permanent depository of the statement of our affairs, generally.

Charged to, is synonymous with *debited*.

The prices at which the several items, are charged in our supposed inventory, are not intended to conform, even remotely, to the market, but merely an approximation to the relative value, of each article.

We recommended carrying these several items to the credit of your own personal account, represented by J. Smith, for the obvious reason, that we naturally supposed three-fourths of the farming community, had long since forgotten what their stock and implements stood them in, and in many instances even where purchased, the price of the land; now depreciated in intrinsic value by improper cultivation, or in rare cases, augmented in value by judicious treatment. Even where the price is still remembered, and no correct debit and credit account of our lands, has been regularly kept; and especially, where they are inherited, already stocked and cleared; to obtain any degree of accuracy, the *present cash value*, as compared to recent sales in the neighborhood, should be the standard of inventory estimate.

But the necessary extension of our subject, renders a more comprehensive view of accounts, and particularity in detail, necessary, to suit the position of another portion.

Where a farm is not yet paid for, or recently purchased, whatever is given in exchange (*whatever pays*) for it, should be *credited*—as, for instance, A. B. purchases a farm from C. D., for $10,000, for which he pays one half cash, and gives his note for the balance—his entries would be in both cash and day books—in the former, Land account, Dr. to Cash—in the latter, Land account Dr. to Bills payable, (or to C D.) But cash must *account* for the possession of this sum. Cash being a *particular* account, representing a portion of our substance, would stand *charged to* A. B's personal account for the amount. If the amount were borrowed, cash would still be *debited*, but to E. F. or, the individual of whom borrowed. So that precisely the same principle is sustained, as recommended in the first section, although the transaction be present, not past. Where a purchase is made and not closed for the credit, by a bond or note, at once; it is customary to pass it to the credit of the party; and when closed, to charge him to the note, under Bills Payable account. By both of these supposed cases, Bills Payable account, in the purchase named, would be credited by $5,000—to balance which, when the note is paid at maturity, Bills Payable is debited to Cash.

The other *particular* accounts, in like manner, will be *debited* to what they cost; as for instance, if you exchange a horse for a corn and cob crusher, and wish to open a separate account for this piece of machinery, to see if it pays, your entry would be:

Corn and Cob Crusher acc't, Dr. To *Horse* acc't.

For horse Tom, exchanged for same—so much.

If you did not wish to open a separate account, *Charges* is the proper account to credit *Horse account* by. If bought for *Cash; Charges* Dr. To *Cash*; or, which is the same; *Cash* would be *Cr. by Charges*. If purchased of G. H. on open account, G. H. must be credited.

Besides the particular accounts enumerated in our inventory, those of House, Vegetable and Fruit, when they are of sufficient prominence, shall each be represented separately. Particular accounts may be further subdivided, as instead of Grain account, Wheat, Rye, Corn and Oat account distinct—or they may be combined under one head, as instead of Horse, Cow, Sheep and Hog account; simply Live Stock account—but the more distinct they are kept, the more satisfactory will be the result of your application, the more valuable your experience, and in truth, the less will be the labor required, as perspicuity is more easily maintained, than confusion is from being "worse confounded."

In carrying out these lesser accounts, your *diary* will be found of essential service. It acts like the petty charges and cash books do in mercantile houses; for it contains the detail of those daily items, which, at the end of the week or month, or any regular *posting* period, you can reduce to order and aggregate, under their several heads.

Manure Account—This account from its prominence, first demands explanation. If a certain lot of manure, the quantity being ascertained, be either purchased, or valued in the barn-yard, and hauled out to a certain field for a specific purpose, or particular crop; it need not go into the general manure account, but may at once be charged to the field—if you design opening accounts against the fields—or, to the Crop. Care being taken, if the latter, in case of setting a meadow, or other perennial crop with grain, and applying a permanent manure; to charge the grain, or first crop, only to its proper portion, and the rest to the grass crop; if the supposition be that all will be exhausted, during the time it may occupy the ground. On reference to our supposed diary, you will perceive that, after noting a top-dressing with ten bushels per acre, of fresh ashes, to wheat set with timothy,—two and one half is allowed for the wheat, and seven and a half to the grass.

Ashes being a permanent manure, the grass, which will probably last five years, will receive nearly all the benefit,—and yet, if no other dressing be applied during that period, but one and a half bushel for each acre per annum, is charged to it. But a large portion being soluble in water, the wheat, it is natural to suppose, will obtain the greater share of potash, &c. in the ashes; hence we charge it with a larger portion. We do not pretend to say we have adjusted these proportions, in the supposed case before us, according to known chemical rules and analyses; but the scientific *principle* has been consulted.

It would be manifestly unjust to charge the whole application to the wheat, or to the grass alone.

This exactness, you may be inclined to think, can never be attained. We do not suppose it can, to a grain or particle; but the actual strength of the ashes applied being ascertained, the inorganic properties it contains, and the deficiency of those same properties in the ground, being established; the wheat being known to extract certain ingredients out of the soil, besides sand, should be charged for what it consumes—as if one hundred pounds of wood ash, contain four pounds of potash, and the soil possess none, or only a trace, and the crop of wheat extract one pound for every hundred pounds of ashes, or four pounds of potash; it should be charged to twenty five pounds of ashes, leaving three pounds of potash or seventy-five pounds ashes for the grass.

At any rate, nice observation will promote a more intimate knowledge of the Chemistry and Physiology of vegetation, and of the *feeding* principle, said to be practiced by the Chinese with such success.

We prefer, however, as the closest approximation to chemical exactness attainable at present, to carry all manures to one general account, and to charge each crop or field to it, as used, on the principle of wholesale purchase and retail sale. This is very easily accomplished by measuring out the quantity

previous to hauling it out, whether it be by the bushel or load.

Where a course of experiments is being conducted, manure account may be sub-divided into stable manure, Guano, Lime, Plaister, Ashes, &c.—or only calcareous, vegetable and animal.

Manure made at home should be charged to the credit of the stock, labor, and other expenses attending its production, this being *the* great experiment of yarding and housing, and soiling stocks. If manure cost nothing to produce it, we would all have a surplus; but it is, no doubt, as much a species of production as a grain crop; and is essential to the reproduction of all cultivated vegetation.

All green crops sown for the purpose of being ploughed in, should be previously valued as so much manure, charged to that account, and credited to grain account for the seed sown, and to the proper accounts for the other expenses of producing it.—The succeeding crop being charged to manure account for the value, to balance it.

Field Accounts are only so many sub-divisions of Land account, and must pass into the general land account, at the end of the year. The sole advantage which we can discover, in opening them, is to proportion the charge of manure, as we may be several successive years in crediting manure account for a heavy dressing of lime, or other permanent manure.

An account is opened for each field in many parts of England, especially where a certain kind of manure, such as guano, may have been applied, to test its comparative value. This plan would not prevent Land account from being balanced once a year.—Even when a permanent manure was in the way, the balance of strength still in the ground might remain charged, for which the future *increased* yield may be supposed to compensate; but as we before said, Land account, under its general head, would have to be credited by the whole nett returns of land; grain, and other accounts charged, for the cost of their production to each separate enclosure, as well as separate labor, &c. Viewing it in several lights, we would not advise such a system.

Land should not be considered as being in itself a reproducer; it being only a permeable body of mineral and vegetable matter, percolated by moisture, containing small portions of atmospheric air, and subject to greater or less degrees of temperature; out of which, industry, labor and manure, can extract the more valuable vegetable productions, for the support of animal and re-organization of vegetable life; for even after we have done all we can to assist and conform to nature; immutable natural laws, called in physics, Chemistry and Physiology, complete the process in their own way.

Lands and tenements already thereon, are generally included under one account, and are only so much funded capital from which, by the addition of the artificial appliances of labor, floating means and time, you expect a return in the shape of an income, or interest on your investment; which should be classified under interest, and as such will be treated of, more at large in a separate section devoted to that species of accounts.

Land Account should, however, be charged to its original cost, or present value, taxes and interest; and credited by the *nett* yield of the whole place, and, in the case of a sale, with the advance price, or gross amount of sales; less commissions, if sold at public auction. Besides which, at the end of each year, as will hereafter be shown, it should be balanced and start afresh.

When a new farm house is erected, if it be for any specific purpose, as a corn or tobacco house, the crop for the current year should be charged for the outlay, as the presumption is, it was for its special benefit, and that the future increased security and protection to succeeding crops of the same species, will in time repay it,—although some accident or unforeseen contingency *may* prevent the possibility. We can only act for the present in accounts.

Charges Account—Labor, the most important item on a farm, not by any means falling under this caption, but being its own exponent, we propose considering in a distinct section.

Under the head of Charges account, strictly such, only machinery and other implements should come, as will be seen on reference to our inventory, in detail; because they are expenses for all purposes to which they may be applied, so long as they last.—This account is, however, chargeable for the prime cost, interest and depreciation by wear and tear, and balanced at the end of the year, by the value of the stock on hand, and the *deficiency*, which is loss; and closed by Loss and Profit, Dr. To Charges account, for the amount.

It may be credited, first, by a sale of any article belonging to it—secondly, by some other account, as Cow account, for the use of a cutting box, &c., but wear and tear cannot be averaged to each crop or acre, so that Charges *loses* this item, as shewn above.

We have elsewhere shown, how a particular article under this head, can be erected into a separate account by sub-division: for example—

You have heard much of a Corn and Cob Crusher, and the economy in feed produced by the use of one; you purchase it and open an account headed

Dr. Corn and Cob Crusher. *Cr.*

for the purpose of testing the truth of what you have heard. You charge it to its cost, interest and repairs first, and then for the additional hands, the horses, and horse-power, for wear and tear and use—on the other hand you credit it by all it grinds, at the mill price; with the cobs, hitherto valueless, by Cow account, for its portion, &c.

We have been at some pains to obtain facts in illustration of the present account, and shall present them here:

Say we have bought a Corn and Cob Crusher—now we have been in the habit of sending to a mill, say two miles off, about one hundred and fifty bushels of shelled corn annually, to be ground at five cents per bushel. Where corn and cob are both crushed at a mill, ten cents per double bushel is charged, or five for the cobs as well as corn. Here is the statement.

Dr. *Corn and Cob Crusher.* Cr.

For one year.

Dr.

To Cash account, for cost, ...	25 00
" Interest, 6 per ct.	15
" Cash—repairs of wear, ...	2 50
" Insurance—risk, 12 per ct.	1 30
" Horse account—for use of 2 horses 4 d'ys, to move horse power—8 days, 50cts.	4 00
" Labor acct, 4 hands, 4 days, 16 at 50 cts.	8 00
" Horse power—use, wear and tear, 50 cts.	2 00
Whole capital invested,	41 95

Cr.

By 150 bushels Cobs (corn worth 50 cts) hitherto lost, at 25 cts. . .	37 50

By cost of grinding, hitherto paid at mill, 150 bushels at 5 cts. .	7 50	
" Horse account, for facility afforded them in time gone to mill, .	5 00	
		50 00
Clears itself and leaves a surplus of		$8 05

This is a statement of our own account, and is carefully made at fair prices for labor. The time allowed is liberal, as a crusher of the size costing $25, will in four days, of *eight* hours work each, crush, with a two horse power, 10 bushels per hour; which is 32 hours+10 bushels=320—or twenty over corn and cobs together.

Thus it will be seen how Charges account can be credited, and why the propriety is suggested of opening separate accounts for each large piece of machinery—as the above—Horse Power account—Threshing machine account, &c.—and we presume we have imparted sufficient information to enable you to distinguish what should be debited and what credited to these sub-divided accounts.

At the end of the year the debit or credit balances, as the case may be, can be carried to the general Charges account, or may at once be carried to Loss and Profit account.

The item of clothing presupposes the use either of Slave or indentured labor. The latter being extremely uncommon in rural pursuits, the former may be considered the general inference, and an account may be opened accordingly; for the purpose of distinguishing the debited items of this species of labor, but to prevent unnecessary complication, all the items pro and con of this account should be embraced under the one general head of Labor account, and as such, will be considered in the section embracing that account, more *in extenso*.

Food may very properly be included under Charges account, where mixed labor is employed, without regard to comparisons between the cost of the two kinds; but where the experiment is attempted to test the real advantage on either side, Charges account should be subsequently *credited*; first, by an account headed *Free* Labor account, and then for one called Slave Labor account, in ratio to the numbers of each used. Where the colored portion are all slaves, they invariably dine separately from the whites, and with the care that should be exercised in attempting to establish this important question, a just division of food of the same quality, may be conducted, by weighing out the meat; and by this means the two accounts can be at once charged for their separate outlay.

Where either free or slave labor is exclusively employed, Labor account is the proper heading for this species of expense.

Your diary, as will be seen, should always exhibit the nature, time, and description of hands employed each day, on each particular description of labor.

We pass now to a brief consideration of Live Stock accounts, which we, for evident considerations advise to have distinguished by their several natural species; one of the chief of which is their total dissimilarity in the economy of husbandry, from habits to uses.

Horse Account.—Under this caption should be included every thing of the species, upon the property, unless indeed, where there is an income independent of the estate, out of which coach horses, as luxuries, are distinctly maintained. But unless this is strictly the case—even when a span of horses, or a single carriage horse is kept for convenience and comfort, but chargeable to the farm for his keep—this account should include all.

Horse account should be *debited* to the prime cost, interest, insurance (or risk,) keep and attendance—we shall not be so nice as to say with *light* (or oil) also—especially as we condemn both the hours for labor which require artificial light; and the use of it, in stables and barns. *Idle days* should also appear against them, in a negative manner however, as they should be *credited* with those days *only* on which they work. This value is established by local custom, but is generally considered to be equivalent to manual labor, as one horse, however powerful, cannot haul more than the labourer, with him, can load up. That would be like eating oysters faster than they could be opened.

Each crop or kind of work of which your diary takes cognizance, should be debited for its portion.

Horses should not be charged for *hauling their own feed.*

A few illustrations of the *point in case*, may not be out of place here:

We consider the introduction of another horse on the place a very serious matter; but while we are uttering this, we perceive an incredulous smile light up the features of the gentleman who keeps his racing stud—his hacks, his pacer, and consequently, a dozen poorly fed work horses—while we are equally assured by an inward conviction from this very fact, that to reflecting minds, the subject is one of grave importance *to farmers.*

So serious a matter, indeed, do we conceive it to be, that we candidly think that he who is too poor, from whatever cause, to provide for his family, without one, is too poor to receive a horse as a present, if the condition be attached that he is to keep him also.

The original cost of a horse, bears no proportionate comparison to his subsequent keep—on which, however, interest should be charged, and an insurance, graduated to the average duration of a horse's life, at so much per cent. on the cost and interest, inclusive. Hence a horse costing $100 would stand you in $106 at the end of the year. His *average* duration of life being fifteen years, it would depend upon his age, both at the time purchased and at each subsequent computing period. For instance, a horse being fit for work at four, is in his prime from six to eight, and usually begins to decline from ten years old—so that on a horse five years old costing $100, the risk would be as for ten years, at $8 per annum for the first and second years—$9 for the third and fourth—$10 for the fifth and sixth—$11 for the seventh and eighth, and $12 for the ninth and tenth.—The horse, after attaining to his 'teens, is as likely to live, if well used, as when younger; so that the risk does not increase much, if any, in proportion to increased ratio for the age.

We now present a statement, computed from reliable data; our own books and diary.

Dr. Horse 6 years old.

To prime cost, ...	$100.00
* " interest on cost, ...	6.00
* " insurance, or risk, say	8.00
" cost of keep, averaging $6 per month, .	72.00
" interest on do. $89 avg. 6 months for cost of keep and expenses feeding, ...	2.67
" shoeing and medicine, at least	6.00
" cost and wear of harness, for cart, per ann.,	5.00
" attendance, propor. of 5 h. to $10 per month 1—hand, ¼ time, or 50 c. per month, .	6.00
	$105.67

Or at the lowest prices for feed (capital) 205.67
being more than the prime cost, per annum, or the nett profit of fifteen acres of wheat land, worth $50, yielding twenty bushels per acre; which has to be produced first, although the horse may repay it afterwards.

This will however, be reduced by crediting him with his work and manure.

Our diary gives five days out of the seven, as the average work done by our horses,† for the last three years; and, as every farmer knows, a horse should be kept at work as constantly as possible.

A horse can be hired in our neighborhood, at 25 cts. per day, the hirer feeding him; so that we may safely credit him,

By 260 days work at 50 cts. per day,	$130.00
" manure—2 loads per month, worth 50 cts.	12.00
Total to his credit,	142.00

leaving a balance against him of $63 67
which shows that, when worked five days out of seven, he pays a profit of $36,33 on his keep—or nearly 18 per ct. on both cost and expenses.

Since writing the foregoing, I find in the Farmer's Library, an extract from the Royal Eng. Ag. Soc. Journal, from the pen of a relative, Edward Bowly, Esq. of Sidington, Gloucestershire, Eng., and shall take the liberty of transcribing the whole, in support of my first position. See ext. in Far. Llb. No 6 p.353.

Cow account.—This heading would be more euphoneous, were it styled "Dairy account;" and where the dairy branch,—such as cheese, butter, milk and cream—is the main object in keeping a stock of cows, it is the proper heading; but where a breeding stock is kept; or a number of ordinary cows, for the purpose of converting coarse provender into manure; the dairy yield being a secondary consideration, we would adhere to the above title.

But in all cases, as with every other *particular* account, the cost, interest and keep should be debited—and also, in this case, it should be charged to dairy fixtures and utensils. It should be credited by dairy returns; sales of veal, hides, and beef; skimmed milk fed to swine,—whatever be consumed in the house; and manure. This last item being considered worth about one and a half dollars per month, for all purposes, everywhere.

Hog account—or Swine account, being debited to the cost, &c., the only difference in this account being, that the old lady sow, should at once be credited for her litter,—if sold, by the cash proceeds; but if kept, at one dollar per head, for a good breed, will appear to her credit, at the end of the year, by the increase of stock on hand; the food having already been charged.

Sheep account, likewise, in almost all respects. We would merely hint at interest on "the good-for-nothing-else" land on which they browse; and that *washed* wool, means the live fleece thoroughly cleansed *before* being clipped.

House account, which we have not yet opened in our supposed entries; is for the expenses of the family of the master, *residing* on the place, or of the master and overseer, where both are resident; or of the latter alone, when the proprietor resides elsewhere, although he may draw a portion of his subsistence from his estate, as house expenses, properly such, pertain to the dwelling house, and its inmates.

Every item drawn from the farm, down to a shoat or chicken, should be charged to the debit of house, and to the credit of their respective accounts on the farm.

The mistress of the establishment should have the particular charge of this account, and hand in her vouchers once a month for adjustment to the farm account keeper.

We may here be permitted to say, that the overseer, employed in the absence of the owner, should not be considered qualified to discharge *all* the *duties* of his station, unless he can read, write and calculate simple accounts.

A vegetable, fruit, and a poultry account, should be severally opened where these items are of any prominence whatever, subject to the same rules of debit and credit, as other *particular* accounts.

Cash, Labor and Land accounts, we propose considering in the following section, somewhat more in proportion to their magnitude, as *particular* accounts representing a portion of our substance.

Individual accounts, such as John Brown's, are easily understood, and do not, therefore, require much explanation.

Each is *debited* for what he buys, to the account bought of; the debit in his account and the *credit* in the other account, balancing in a *trial* balance.

Your *personal* account being so intimately blended with Loss & Profit, we shall consider them together.

CINCINNATUS.

*Thaer considers 12 per ct. the proper interest to charge on *floating* items, where the current rate usually was 5 per cent.

†Thaer's experience gave as the capacity of the hirer, 300 days, and his French translators gave *exactly what mine have performed*, viz: 260 days.—See Far. Library No. 3, fo. 44, note.

At the first Agricultural Meeting for the season at the State House, Boston, among other subjects on the tapis, was the Potato rot.

Mr. Cole thought the rot should be ascribed chiefly to atmospheric influence. He said apples of various kinds had been affected in the same way. Jewett's Fine Red he had known for 30 years, and he had never seen it so much affected with rot as in the last autumn. He thought the atmosphere might affect various kinds of fruits in the same way as it affects the potato.

Amos Clarke, said he found warts on his diseased potatoes—the Blues and the Rohans, but not on the Long Reds—though all were planted and treated alike. The rot had increased since they were put into the cellar.

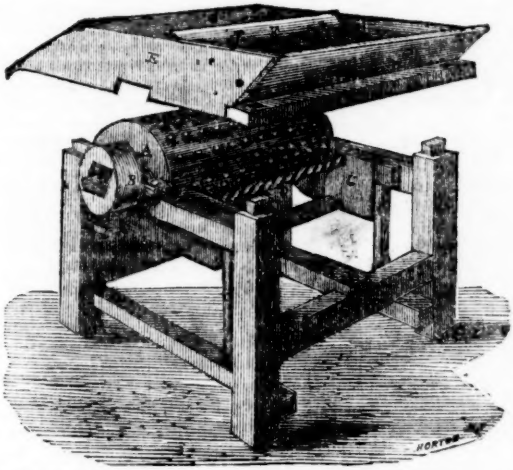
Abel Gleason, had mixed peat muck with stable manure, in '44, and found his potatoes more sound than where clear manure was used. In 1845 he was very careful in selecting seed. None of his own or of his neighbors rotted. Potatoes had not rotted in '45 as in '44, in any place that he had heard from in this State.

J. A. Morton, said he could not learn much from any one as to the cause of the rot. Where he put lime in the hill last spring his own potatoes were not rotten; he put a small handful in each hill. He could not be positive whether lime did any good. He thought potatoes had rotted more in the west of the State in '45 than in '44.

A motion was now made to choose a Committee to name a subject, at each meeting, to be discussed at the following one;—also to engage some person to commence the evening's work, by an address of half an hour's length.

The President was requested to name a subject for the next evening, and he proposed "The application of manures."

GOLDSBOROUGH'S CORN SHELLER AND HUSKING MACHINE.



Mr. Editor:—To obviate the necessity of replying to a number of letters and enquiries on the subject of Goldsborough's Shelling Machine (most of them from subscribers to the "American Farmer") has induced us to send you the above cut, and this description, which we think is sufficiently explicit to be understood—as appears by the cut, the machine is simple and very strong, the cylinder is made of cast Iron, (and the surface filled with jogs at regular intervals) and secured by wrought iron bands. On the concave, (over which the cylinder works) are placed revolving spiral shaped bars, which, with the concave frame, springs back more or less according to the pressure of the corn on it.

This machine is capable of shelling 1200 bushels, or Husking and shelling 700 bushels of corn per day, breaks none of the grains, and leaves none on the cob; we think it decidedly the best machine (all things considered) in the country for extensive corn growers. Price $40.

Also, Petigrew's Corn Shellers, on the Bark Mill principle—made to order. Price $80.

R. SINCLAIR, JR. & Co.,
Plough & Machine Manufacturers, No. 62 Light-st.

"PREMIUM PLOUGH."

To the Editor of the American Farmer.

SIR:—As a friend of Agriculture, and desirous to see it flourish in all its various branches, I read with regret the article in your last paper, over the name of "*Boston Plough.*" Such articles show excited feelings proceeding from envy, disappointment, or other unworthy causes that should never be found in the bosom of a farmer or Agricultural artisan. I do not charge the writer of "Boston Plough" with any such motives, but I speak of such articles as too often proceeding from such feelings. "*Boston Plough*" is however to blame, for writing without having the *facts* to rely upon. He intimates that Sinclair & Co. had no competitors. They produced a splendid "array" of Ploughs, among which were the best N. York City and North-River Ploughs—the Hill-side—Davis—other Maryland Ploughs, and the celebrated "Wiley," &c. &c. And Mr. Whitman had several sizes of the "Prouty & Mears" or "*Boston Centre Draught Plough*"—and they were all examined closely by the committee. They were not *tried*, because each of the committee was a practical planter who had been for some time past familiar with each sort there exhibited, particularly familiar with the Boston Centre Draught, and partial to it, as a plough for a smooth turf, or other lands freed from all obstructions, but they deemed "The Maryland Plough" (in the language of the Society for Premium) "the best plough suitable for all purposes." If the committee had considered "the Boston Plough" as the *best*, it would have so reported it to the Society, and if under the By-Laws *it* had received no premium, certain it is no other plough would have received any, for the premium was designed for the "best plough exhibited," and if the same plough is esteemed the best, it will be so reported for years in succession, whether the premium follows the award or not. In 1844, the Boston Plough received the Premium; two of the same committee were again on the said committee for 1845, and they observed that the "Maryland Plough" had undergone such improvements as to render it superior to the "Boston Plough" and so reported. *These* are *facts*. And it will be perceived therefore that "Boston Plough," is mistaken in supposing itself justified in submitting to an "impartial public" the *inference* that Sinclair & Co., are unworthy of "confidence"—This is submitted to the same Public in order that injustice may not be done to that highly respectable and valuable Agricultural House, so long and favorably known as "Sinclair & Moore's," and recently as R. Sinclair, Jr. & Co. and for the purpose of showing that the Prince George's Ag. Society will mete out "honor to whom honor is due," and maintains the motto "*Fiat justicia ruat calum.*"

ONE OF THE JUDGES OF PLOWS.

THE AMERICAN FARMER.

BALTIMORE, FEBRUARY, 1846.

Maryland Farmers' Club.

The next meeting of the Club will be held on WEDNESDAY, the 11th inst. at 7 o'clock, P. M. at UNION HALL, corner of *Baltimore street and Tripoiett's alley.*

Gentlemen disposed to join the Club are requested to signify their wishes to any of the members.

The Constitution and By-laws will be printed and ready for distribution at the next meeting. By order,

SAML. SANDS, *Rec. Sec.*

DR. MUSE'S ADDRESS—We publish in this month's "Farmer" the Address of Dr. Muse, of this State, delivered before the New Castle (Del.) Agricultural Society, at its last meeting. It contains a vast amount of practical information, and embraces a great variety of details of experiments, which cannot fail to arrest the attention of the enlightened agriculturist. To Dr. Muse and Judge Chambers, the farmers of Maryland are deeply indebted for their zeal and liberality in testing the various *new things* which are continually being presented to the attention of the public—thus leading the way, frequently at no inconsiderable cost of time and money, to test their value—We flatter ourself that we shall receive the hearty thanks of our readers for the well seasoned repast furnished them in the publication of the Dr's. address.

GUANO.—The publisher of the *American Farmer*, having been appointed the Agent of Messrs. *Rodewald*, merchants of this city, for the sale of Guano, is ready to supply any quantity at the shortest notice. This Guano has been subject to the test of analysis in New York and Baltimore, by the most eminent Chemists, and pronounced in all respects, equal to the best in this country. Professor DUCATEL, of Baltimore, to whom a parcel of it was furnished for analyzation, has made a report thereon, which may be examined at the office of the 'FARMER.' Having recently been engaged in the analyzation of other Guanoes now in the market, he was enabled to compare it with the best, and remarks as follows:

"As this result corresponds remarkably with that which is usually given, of the most approved chemical analysis of the *Peruvian Guano*, and that its *physical* characters are identical with it, I have not the least hesitation in pronouncing it of equal commercial value to the best in the market, (according to the convictions of those who have tried the article from its various sources,)—I may add, that having had an opportunity recently, of examining several parcels of Guano, at this time in the Baltimore market, I could scarcely, even independent of a chemical analysis, have mistaken its identity with the *Peruvian Guano*, from whatever quarter it may have been derived.

Very respectfully, J. T. DUCATEL."

THE SATURDAY POST, and THE PHILADELPHIA COURIER, are regularly received at this office—They are published in Philadelphia, and are among the very best family newspapers issued in this country—$2 per ann. or 6 cts. per single copy.

THE WESTERN CONTINENT, is the title of a new weekly paper published in this city, edited by Park Benjamin, a name familiar to the literary world; and the numbers which have already appeared, give assurance that his fame as a writer will suffer no diminution by his present undertaking. He is assisted by the author of "Major Jones' Courtship," "Chronicles of Pineville," and other humorous sketches, the scenes of which are laid in the Southern states, and have gained for the writer much celebrity for wit and humor—$2 per annum.

We have received the following Magazines: Graham's, Godey's, Columbian, Arthur's, N. Y. Illustrated, each $3 a year, 25 c. for single numbers; also the Ladies' National, $2, or 18c. single number. These magazines are most beautifully gotten up, the engravings are of the highest order, and the contents of each work are of that character which every parent may with full confidence place within the reach of his family, as nothing in the slightest degree calculated to tinge the cheek of modesty, is ever to be found in their pages.

☞Single numbers for sale, and subscriptions received at our book-store, for any of the above works.

THE BALTIMORE AMERICAN, one of the oldest as it is one of the ablest and most dignified journals of our country, commenced the new year in a beautiful new dress, with an enlargement of its dimensions by the addition of four columns thereto. We rejoice to see these evidences of the prosperity of this admirably conducted paper; as a connexion with the establishment for a number of years, enables us to testify to the unceasing labor and watchfulness which has enabled its editors to place their journal in its present eminent position.

We have received a very interesting communication from a correspondent, descriptive of the general management of a stock and tillage Farm on the borders of Scotland and England—its publication, is, however, necessarily deferred until our next, the arrangements for this No. precluding its insertion at present—We hope our correspondent will continue to contribute to our columns, as we are confident his writings will be found very acceptable to our readers.

A communication on Bone Dust, was received too late for this No.—which we much regret.

We call attention to the advertisement on another page, of A. B. Allen, Esq., Editor of the American Agriculturist, who, it will be seen, has opened an establishment in the city of New York for the sale of various matters required by Agriculturists. His skill and experience in such matters, will render him a safe medium through which those wanting supplies from that quarter can be supplied, and we bespeak for him the patronage of the farmers and planters of the South.—Subscriptions to his "*American Agriculturist*," one of the best works, published, by the by, will be received at our bookstore.

WASHINGTON COUNTY, MD.—From a letter from one of our patrons, we make the following extract—and would add, that, fertile as are the lands of that rich county, we are satisfied, they could be made still more productive by attention to the science of agriculture. Experience in other states, and particularly that of New York, has shown that the best of lands can be reduced to a state nearly worthless, for want of the knowledge which would enable the owners to supply them with that food which is requisite to meet the deficiency caused by the growing crops of each succeeding year—We hope a more lively interest will be awakened in Washington County—there are not wanting men within her borders, capable of drawing the attention of the agricultural community to the subject, and they owe it to themselves and their country, to bestir themselves in creating a feeling which, if properly directed, will add greatly to the wealth and prosperity of their county—for they may rest assured, that the natural advantages they now possess will not save them from falling behind in competition with their brethren in the West, who are now obtaining greater facilities of transporting their produce to market; or with those who, being nearer to the principal market of our State, are

so improving their farms as to be enabled to vie with them in the amount of products obtained from a given amount of land. But to the extract:

"Our Washington County lands are proverbial for their fertility, but let me assure you, sir, that they can be vastly improved by a little "book farming," such as is recommended by your Journal. We have hundreds of acres here poor enough; though not naturally so, but rendered poor by a course of management dictated by ignorance and prejudice, and kept so by the perverseness of those who adhere to old customs, because their "Fathers did so;" and whose skulls are as impervious to the lights of Science, as is Gibraltar to a musket ball. But we must hope for the better. We want some energetic men here, such as you have in a Bowly, a Calvert, a Bowie, a Brookes, and so on, to put the wheel in motion, and my humble word for it, the product of our land would far exceed what it now is. By the bye, cannot your Farmers' Club, (which is an excellent Society) do something for the Country, and for themselves, by importing some of the Alpaca Sheep? They certainly would be a great addition to our stock. I must conclude by wishing you every success possible; and at the same time assure you, that I will use my endeavors to obtain subscribers to your Journal in my neighborhood." G. F. K.

In due time our Club, we hope, will be found doing its part in the way suggested by our correspondent—in the meantime, we are enabled to say, that a public spirited farmer of our vicinity, is making arrangements to procure some of the Alpacas, and we hope he may be successful.

THE FARMERS' LIBRARY.

The seventh, or January number, of this excellent monthly Journal has been received by us. As our readers are aware, it is published in New York by *Greeley & McElrath*, and edited by that benefactor of Agriculture, *John S. Skinner*, Esq., a gentleman so well known to husbandmen that his name has become a kind of household god in every homestead, where intelligence has its abode, from the shores of the Atlantic to the far off mountains of the West—the prairies of the south-west, and the savannahs of the south. Look where we may amongst the reading farmers and planters of our far stretching land, and it would be difficult to find a well informed individual among them, but will tell you, that he knows John S. Skinner "like a book," as old Mr. Hughes would say—And why is it so? Simply, because he is the father of Agricultural literature in this country, and that he has been its steadfast friend for the third of a century—because from the first period of his taking the plough in hand—whether the team he drove was his own or belonged to some one else, he has continued to hoe his row, or turn his furrow, with that zeal which told the *heart* as well as the head was devoted to the improvement of the soil.——A pretty dilemma we have got ourself into. We took pen in hand to notice the *book*, but had hardly commenced before our partiality for the editor caused us to forget our purpose; but as we have but little space to spare, we must cry *halt* as to the *man*, and speak of his admirably filled *pages*. The present number contains a continuation of "Thaers' principles of agriculture"—a notice of a *new* treatise on milch cows, by which it is reduced to certainty, not only to tell how much milk a cow will give, but how much her female offspring, with which she may be pregnant will also give. This, the reader will say, is a little too heavy a tax for human belief, and yet the translator professes to be an unwilling convert to the truth of the theory—A notice of the Maryland Farmers' Club, written with all that piquant playfulness in which the editor excels all other men—a sketch of Farm buildings, by Wilkinson, accompanied by a lucid description by the draughtsman, as well as remarks by the editor—an excellent paper on the operation of lime, by Robert McTurk, Esq., of Hastings Hall, Dumfrieshire, Scotland—The Housewife's department, filled with valuable recipes—Thoughts on the distribution of labor; besides many others of deep interest to the economy and management of the farm.

The notice of the Maryland Farmers' Club, is written so much in the *vein* of those savory articles, which in by-gone times we used to feast upon, from the same finished pen, that we cannot refrain from extracting from it:

"We have already more than once expressed our humble persuasion of the utility of FARMERS' CLUBS; and feel much gratified in the belief that they will spring up and do good service in all parts of the Union.

The one which has been recently formed at Baltimore, Md., has started right foot foremost, by taking effectual measures to promote *intellectual inquiry and scientific investigation into matters of obvious importance.* The results of such investigations bring new facts to light, lift Agriculture from the mire, cause it to be respected as a pursuit worthy at once to task and to amuse the mind of the scholar and the man of science; and according as it is pursued in that spirit, to augment the best sort of stock, that man can covet or possess—*the stock of knowledge.* We rejoice to know that we shall see, from time to time, the proceedings of this respectable Club in their "*organ*," the old AMERICAN FARMER; which, by the bye, has come out in new and fashionable attire, looking as fresh and vigorous as an old fruit tree recently and judiciously pruned and washed over and scrubbed with soap suds and *sands!* The Club could not have a better Repository for their good works. We would gladly copy all their proceeding as we find them in the Baltimore Patriot, but that cannot be expected of a work like this, intended so much more for the promulgation of principles than for the register of details."

SUMMER MANAGEMENT OF SHEEP.

In a former number we noticed the admirable work, entitled, the "*American Shepherd*," by *L. A. Morrell*, and promised to recur to it again. This we do now with the more pleasure, as a subsequent re-perusal of the Book has confirmed us in our former opinion that, taken as a whole, it is the best one ever published for the uses and purposes of those of American sheep breeders, who may either be engaged in the business, or intend to embark in it. The very intelligent author has not only availed him-

self, in the compilation and writing of his work, of the lights reflected by European authors, but has done so with regard to some of the most extensive wool growers in America; thus laying before his readers a mass of the most invaluable information, so collected and arranged as to be presented in the most intelligible form. Superadded to these sources of information, he has thrown in the results of his own great experience. Thus, as it were, placing before the public eye, that which his judgment approves, and rejecting that which is not adapted to the habits and condition of the people of our own country. In separating, as he has done, the chaff from the wheat, and retaining nothing but what can be rendered practically useful, Mr. *Morrell* has rendered a most acceptable service to the Agricultural public, and entitled his Book to a place in every farmer and planter's Library. To the man who makes Sheep-raising a primary object on his estate—to him who makes wool his *money-crop*,—we look upon the purchase of the "*American Shepherd*," as an indispensable prerequisite to success, and therefore commend the publication to the patronage of the whole agricultural community.

In what we are about to *abstract* from the work we shall use *brevity*, contenting ourself with stating the *substance* of each chapter sufficiently clear, however, in our own language, to be understood.

Change from Dry to Green Food.

Sheep which may have been confined in yards or sheds upon hay or fodder, through the winter, should not be suddenly turned to grass in the spring; but it is better to suffer them to graze for an hour or two daily for a week first—during which period they should be fed during the residue of the day upon good hay and a small portion of grain. With those who have had regular supplies of roots, through the winter, the danger of turning them to grass in the spring is greatly reduced.

Separating the Weak from the Strong.

The weak should be separated from the strong Sheep—the ewes about to yean, and the yearlings particularly require this attention, and should be put upon the best feed and pasture to bring them up in condition.

Tagging of Sheep.

Before being turned to pasture in the spring, sheep should undergo the operation of being tagged, which consists in clipping off the wool from about and below the dock and from between the thighs. This precaution avoids that accumulation of filth in these regions, and prevents the animal from being fly-blown, as it protects against soreness and ulceration.

Cutting Horns and Hoofs.

At the time of tagging, should they require it, the horns of the sheep should be cut and their hoofs paired.

Drafting for the Butcher.

Such sheep as may be intended to be sold to the butcher, should be selected in spring and put into the best pasture, in order that they may be put in good condition at the earliest period.

Lambing.

Time of parturition to be determined by climate and circumstances. In the northern and middle states, the month of May is considered the most eligible. Where houses are provided, an earlier period may answer.

Ewes in lamb should be disturbed as little as possible, and care paid to their food. Its quality should be good, and given in such *quantity* as to keep them in good condition *without* making them *fat*, as that state is injurious, and sometimes induces abortion. They should be kept during winter and early spring exempt from storms and cold.

Salting.

Attention must be paid to salting the sheep, and especially after being turned to pasture. The plentiful use of salt is found to be preventive of the Liver-rot and scouring. Two quarts to the 100 sheep, once a week, is stated as about the proper quantity. They may be either salted on the ground or in troughs.

Washing.

The operation of washing should not be performed until both the weather and water is comparatively warm—say about the 25th of May till the 1st of June. A good day, when the sun shines brightly, should be selected—the time to commence from 10 o'clock A. M. to 12 o'clock, M. If any dung locks be upon the sheep they should be cut off before the sheep is washed, and for this end, a sharp pair of shears should be at hand.

A running stream with a gravelly bottom is perhaps the best and most economical place. Where there is no such stream at hand Mr. Morrell recommends

A Vat

Made of two inch pine plank, held together by 3 inch oak gripes. The one he uses is about 9 feet long, 4½ feet wide, and 3½ feet deep. The troughs which conduct the water to it are about 18 inches above the level of the top of the vat.

On one side of the vat is a permanent platform made of stone and floored with plank, the surface having a gentle inclination towards the vat, on which the sheep are held for a minute or more, after being washed, that the water may drain from the fleece.

Beside the vat (not in it) and upon the platform stands one of the washers, and a temporary staging on the opposite side accommodates another. One man is employed to bring the sheep from a small pond close at hand, and put them into the vat, in which two are held at a time by another at the lower end, for two or three minutes, with a view to soften the dirt. The washers then take them, and each holds one under the troughs or spouts, turning them in every position to receive the full benefit from the fall of the water, which proceeds with such force as to dislodge the dirt rapidly, and in a much briefer time than it can be done by squeezing. When the

supply of water is full no squeezing will be necessary, except, perhaps, the belly and thigh wool. As soon as the sheep held by the man for soaking pass from his hands to the washers, he is immediately supplied with others; and thus while two are soaking, two others are being washed under the spouts. One end of the vat being set a little below a level, the dirt passes freely off, and consequently the water is conparatively pure, the good effects of which will be seen in the almost cotton whiteness of the inner portion of the fleece. As to eradicating *all* the dirt from the external surface of wool when upon the sheep, it is not expected, for it is impossible to accomplish it; and therefore it must be left to the cleansing process of the manufacturer. *Soap* may be advantageously used in the process of washing.

After the sheep have been washed, they should be turned upon a thickly covered sward, that no dirt may collect on the fleeces before they are shorn. Driving along dusty roads after being washed must be avoided.

CASTRATION AND DOCKING.

According to the size of the lamb and the weather, these operations should be performed when the lambs are from 5 to 20 days old—always in good mild weather, and early in the morning.

The lambs must be brought without hurry from the field. Confine them in a *small pound*, to prevent their being heated from exercise.

The following is the mode recommended, being the one practiced by the author for many years:

"One catches a lamb and seats himself astride a narrow plank or scantling, which is placed at an inclination of about 30 degrees, pressing the back of the lamb firmly against the belly, and with his hands grasps the hind legs, drawing them upwards and towards him, so that the *scrotum* is fairly exposed for the operation. The operator with a sharp knife cuts off about one-half to two-thirds of the testicle bag; then drops his knife, and draws out one of the testicles at a time, till a portion of the connecting cord is seen, which he divides by the friction of his thumb and nail. This mode of division lacerates the cord, and less bleeding will follow than if done by a sharp instrument. It may, to some, appear unnecessary, and therefore objectionable, to cut off so much of the scrotum or bag; but if dislodged of its contents, it is certainly quite a useless affair, the little wool growing upon it being almost worthless, and a bother always to the tagger and shearer when cutting it off. No danger can arise, if the ointment, which will be presently spoken of, is used."

"After the testicles are removed, the operator grasps the tail of the lamb, and severs it about one inch from the root."

"The castration and docking being performed, use must be made of an ointment made as follows: To 1 quart of tar, add 2 lbs. of lard, warm them into a liquid and then add a gill of spirits of turpentine, and apply it to the *parts*, with a soft swab, and for one or two inches around them. This is very healthy in its effects, prevents inflammation from colds, and what is of most consequence, is an effectual guard against the attacks of the maggot fly."

"The lambs are put out of the pound as fast as each has passed the operation, and are disposed to be very quiet, which is quite right, as it checks the discharge of blood. Let them remain for an hour or more, if the pasture to which they are to be turned is distant, and then they may be moved off, but very slowly."

(*To be Continued.*)

THE WHEAT FLY.

"*An Essay upon the Wheat-fly, and some species allied to it*"—is the title of a work, in pamphlet form, by Asa Fitch, M. D. of Salem, N. Y., being a republication, from the American Quarterly Journal of Agriculture and Science, Vol. 2, No. 2—for which we are indebted to the Author.

A sufficient knowledge of Entomology, to enable the practical farmer to detect the *family*, and consequently the *habits*, of all destructive species of insects, is doubtless, much to be coveted; and in no way, perhaps, can an abstruse science be better inculcated, than by unassuming tracts, confined to the peculiar habits of a common enemy to the husbandman; and thus, in a few words, attracting his attention to the preservation of his own interests.

Entomology, like all the other sciences, is surrounded by a paraphernalia of technology, which, it would be better, for practical purposes, to explain, concerning each particular insect, brought specially to the notice of the tiller of the soil; who, however sedulous in the pursuit of information, on all topics which *should* interest him, cannot be expected to be *au fait* of nice distinctions in Latin and Greek names for colors, shapes and characteristics. This general objection has, in the present instance, been most happily obviated, by the introduction of a well colored plate, correctly representing the colors, and formation, as seen through a microscope, of each, and also the natural size of the insect mainly treated of.

Agriculture owes a vast deal of its improvement to the researches of doctors of medicine; who from their education, and, as is sometimes the case, their learned leisure, combined with a natural taste for rural life, are in every way qualified to penetrate the arcanum of nature, and reveal her most latent truths.

When we look at the microscopic lineaments of the insect which devastates, at different intervals, whole sections of grain growing regions, we are at first disposed to question the scientific data, upon which its *ability* to perform so much, is drawn; but when we reflect its "name is legion"—a physical as well as moral truth, explains the apparent mystery—what one *cannot* perform, many may accomplish with facility.

Our own experience—and we may hope, that of our readers—will only enable us to confirm but a few of the facts, as set forth in the very perspicuous and comprehensible style of Dr. Fitch.

We have ourselves been startled by the cry of "Wolf!" when only a stray lamb or two has entered the fold—in the small, dark fly, which is seen hovering over our wheat fields, when in blossom, as if attracted by the saccharine juice in the flower.

The *Cecidomyia tritici*, as the *clear winged* species is classified by Kirby, is very different from all our notions of "the fly;" having but littte or no affinity to the Hessian fly, whose history is still a matter of speculation. It appears to have been seen in Virginia, by Col. Langdon Carter, as early as 1768—whereas its foreign history, "distinct and unequivocal," to cite from the text, dates no further back, than 1771—so that there can be no doubt of our title to priority, as to its *discovery*—we trust, however, it has not acquired a further right by *settlement*, although from the locality of the first authority, we have reason to apprehend its vicinage.

As it is not likely the whole treatise will find its way to all of our numerous patrons, we have marked and shall extract, the leading features and means, by which its presence may be detected,—and by what manner it is proposed to remedy the evil.

"The common reader will get the most clear and definite idea of the appearance of the wheat-fly, by being told that it looks almost exactly like the wheat worm with wings and legs added to it. These members, however, are so very small as to be scarcely recognized by the naked eye, except when fixed intently upon the object.

The HEAD of the *female* Cecidomyia tritici is of an orbiculate or flattened-globular form, with the *eyes* forming its periphery. These are large, occupying full two-thirds of the entire head. They are of a deep black color, and are separated from each other on the top of the head only by a slight and almost imperceptible cleft, so that when viewed in front they appear like a continuous broad black band surrounding the head, and interrupted only below at the mouth, thus resembling a horseshoe in their figure. The *face* is pale yellow. In its centre, and contiguous to each other, are two yellow tubercles or spherical eminences, more or less conspicuous, on which the antennæ are inserted, and which are by some regarded as forming a joint of these organs, in addition to the number commonly stated. The *antennæ* are of a deep brown or black color, less intense than the eyes. They are of about the same length as the body, and composed of twelve joints. Each joint is commonly oblong, with a marked contraction in its middle, a shape which is sometimes designated as 'coarctiform,' and is surrounded with a whirl or row of hairs near its base, and another near its apex.*

The joints are ordinarily about thrice as long as they are broad, their diameter being but little less than that of their legs. They are connected together by a slender thread intervening between each joint, and about a fourth as long as the joints themselves. The two *palpi* are pale yellow, and clothed with shortish hairs: each is composed of four oval joints; the terminal one being longer, but of the same diameter with the preceding.

The THORAX is of a pale yellow color; its upper side commonly tinged with fulvous brown, which sometimes, though rarely, forms three vittæ or longitudinal spots forward of the middle. It is of an ovate form, its greatest breadth being immediately back of the wing sockets. Its vertical diameter much exceeds the transverse, as is common in most species of *Tipulidæ*, the breast jutting down far below the level of the head and abdomen. The *poisers* are oval, honey-yellow, their pedicels with a strong notch in the middle of their anterior sides.

The ABDOMEN throughout is of an orange color, more inclining to red than yellow. Its broadest part scarcely equals the thorax in diameter. It is of an ovate form, attenuated towards its tip, whence the two valvular sheaths of the ovipositor are often seen more or less exserted, and sometimes the apex of the ovipositor itself projecting between them like a fine slender thread. According to Mr. Curtis, by a slight pressure on the abdomen of the living insect, the ovipositor can be made to protrude, and may then be drawn out to nearly thrice the length of the body.

The WINGS are hyaline and colorless, appearing like thin plates of glass or mica, but reflecting the tints of the rainbow, particularly the violet, when viewed in certain directions. Their margins are densely ciliated with longish hairs, and their surface is covered with minute pubescence. The mediastinal or *submarginal nerve* is but slightly distant from the costal (marginal), and becomes confluent with it rather forward of the middle of the exterior margin. From its middle, it sends a small connecting nerve backward to the postcostal. The *postcostal*, which is the most conspicuous nervure of the wing, runs direct, or with but an insensible curve, to the tip of the wing. The *medial* is straight, and attains the inner margin at about three-fourths of the distance from the base to the apex of the wing. The *anal* runs nearly parallel with the inner margin, and, with a very sudden curve from its direct course, joins the margin near its middle. It gives off an obscure branch at its angle, which curves outwards and backwards, joining the medial, or rather, seeming (if the wing be moved so as to give a slightly different incidence to the light) to be continued onward, parallel with and contiguous to the medial nerve, till it attains the margin of the wing. The medial and anal nerves are very slender, and are often invisible, except in a particular reflection of the light. The former, especially, can seldom be distinctly traced except towards its termination. These details of the neuration of the wing apply equally well to all the species of Cecidomyia that have fallen under my observation, save only that they are more distinctly traced in the others, particularly the larger species. At rest, the wings are laid one upon the other, reposing horizontally upon the back of the abdomen, and reaching about a fourth of their length beyond it.

The LEGS are whitish or very pale yellow, long and slender, of a cylindrical form, and of nearly the same diameter through their entire length. The coxæ (small joints by which the femurs are connected with the sternum), as they are directed more or less backwards, vary the point from which the legs seem to arise in different specimens when viewed from above. The femurs, tibiæ, and second joint of

*Not unfrequently, however, singular anomalies occur in these joints. Thus in some the contraction will be so considerable as to cause the segment to appear like two globular joints slightly but distinctly separated from each other; whilst other segments *of the same series* are abbreviated and dilated, the usual contraction thus becoming obsolete, and the joint taking on a short cylindrical form. It would thus seem as though we, in the female, met with the twenty-four joints of the male antennæ in a modified or imperfectly developed condition; that what appears as a single oblong coarctiform joint, is in reality two joints united. This would give but a single whirl of hairs to each joint, as is common in most of species of this genus.

the tarsi, are all of about the same length. The third, fourth and fifth joints of the tarsi, are successively shorter; whilst the basal joint is the shortest of all, its length little exceeding its diameter.

All parts of the body and limbs are clothed with minute, slender, longish hairs.

The MALE differs so remarkably in its aspect from the female, and is moreover so rare an insect, that it has generally escaped the researches of observers. It would appear from Mr. Curtis' paper, that Meigen is the only one who has identified and given a description of this sex; and I should distrust my having any specimens of it, but that one of the flies hatched from the larvæ already spoken of as gathered in a wheat-field early in the spring, is a male; and a few of my other specimens manifestly coincide with this. In these the *attennæ* are at least double the length of the body, and composed of twenty-four joints of a very exact globular form; each joint encircled with a single row of hairs, and separated widely from its fellows, the thread between being of about twice the length of the joint itself. The *abdomen*, instead of being of an ovate form, as in the female, is broadest at the base, and thence tapers gradually, though slightly, towards the apex; the terminal segment, however, being broader than the one or two preceding it, and of a reniform shape, with the lobes directed backwards. The male is also somewhat smaller in size: in all its other marks, it appears to correspond with the female.

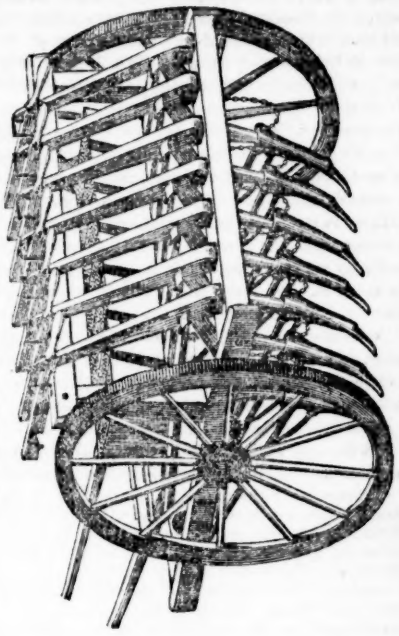
Among the host of specimens of the female that may be met with, there will occur considerable variations in size, color, and some minor particulars. The common length, to the tip of the abdomen, is the twelfth of an inch, or slightly under this; yet I have measured recent specimens from the wheat field, that were but half this size. The color seems to be more uniform in specimens taken from the wheat-field, than in those procured in other situations. It is of a lively orange-red, particularly upon the abdomen, where the color is most observed; but varies from that to amber or honey-yellow, lemon-yellow, and even to cream-color. The specimens already spoken of as having been raised in dried earth, are all quite pale; and it would hence appear as though these lighter colored varieties were caused by unfavorable circumstances in which the insect had been placed when in its larvæ state."

We shall be happy to acknowledge the receipt of such other works as the Author may hereafter publish; and have taken the liberty to consign this, to the keeping of the Maryland Farmers' Club.

[We have ordered on from the publishers some copies of the pamphlet above noticed, which will be on sale at our bookstore when received.—*Pub. Am. Farmer.*]

A VALUABLE ANIMAL.—Amongst the many valuable animals belonging to the Duke of Devonshire at Chatsworth, the Derby Mercury mentions a celebrated heifer which His Grace purchased at a meeting of the Royal Agricultural Society at Derby where she won the first prize of £10 as the best yearling short-horned heifer. She also won the first prize of £10 at the Yorkshire Agricultural Meeting at Doncaster, 1843, for the best yearling heifer, and also the first prize of £15 at the Royal Agricultural Meeting at Southampton, 1844, for the best two year old heifer. This beautiful animal was never beaten at any meeting, is now only three years and nine months old, has produced two calves at separate births, for which, together with the dam, 300 guineas have been offered and refused.

PENNOCK'S WHEAT DRILL.



Our attention was drawn, some months since, by an account which was published in our old series of the "*Farmer*," to a machine for drilling wheat, which was exhibited at a meeting of the New Castle (Del.) Agricultural Society. The machine was made from a pattern imported from England, and was spoken very highly of at the time.—Its advantages were stated to be, economy in the use of seed, great certainty in seeding the ground regularly, and despatch in pitching the crops—It had connected with it in front a manure or "management box," for applying guano, ashes, plaster, poudrette, or wood earth along with the seed—and that such improvements had been made in the drill, that comparatively hilly and uneven ground could be seeded with it. The practical working of the machine elicited the praise of all present at the meeting alluded to, and it was deemed of vast importance and value to the wheat and corn growers of the middle and southern states, where large fields are hand sown. We conversed at the time with an English gentleman of much observation, and conversant with the system of farming in his native land, who assured us that the machine in question would be found one of the most valuable ever introduced to the farming community—and we endeavored to obtain a drawing of it, or such further information in regard to it, as would enable us to bring it more prominently before the public, but failed at the time to accomplish our object—We had the pleasure, however, of a visit a few weeks ago, from Major John Jones, of Dela-

ware, by whom our attention was drawn to a statement of Dr. Charles Noble, of his state, which was published in the Report of the Commissioner of Patents, as being copied from the Philadelphia Cabinet, in which he gives an account of the superiority of the drill over hand-sowing, which has induced us to transfer it to our columns; and we are indebted to Maj. Jones, for the above representation of the machine used by Dr. Noble, which is, we learn, a decided improvement upon the imported drill introduced to the notice of the Delaware Society—It is manufactured by Mr. Pennock, of Chester County, Pa. by whom it will be furnished to those wishing to use it. We learn from Maj. Jones, that besides Dr. Noble and himself, the Messrs. Reybolds of Delaware and others in that state, use the machine, and in some instances purchasers after using it for their own crops, have made a good business of it, by putting in the crops of their neighbors.

In the report of the committee on crops of the New Castle Society, at their late Fair, we find the following remarks upon the subject of Dr. Noble's crop:

"The second premium of $5, for the best crop of wheat on two acres, they awarded to Charles Noble, M. D., for his crop of 37½ bushels per acre, on a thirty-six acre field, on his farm, in St. George's Hundred. The land was duly surveyed by A. H. Pennington, Surveyor, with chain and compass, one acre on the higher, one on the lower ground, the product of each cut, thrashed and measured seperately, and each acre measured 37½ bushels, weighing 60 lbs. to the bushel. This field of thirty-six acres was manured on the clover, last winter, with ten one horse cart loads of compost to the acre, and yielded at first crop 124 four mule loads of hay. The second crop was ploughed in and lightly dusted on the top with some compost, and then the field seeded with wheat. The committee cannot but express their gratification at the increased attention being paid by our Farmers generally to the important staple wheat. The Wheat Drill, of Pennock and others is getting rapidly into favor; it will put in evenly and equally 12 acres per day, with less seed and a greater yield at harvest, than can possibly be done by the old hand method. At Harvest time, the important labor-saving and expeditious Horse-power reaping machines of Hussey, may also be seen at work in the enterprising Hundred of St. George's, and we hope to see it in general use all over the county."

A Tax on Dogs.—We learn that petitions are being circulated in Harford county, praying the Legislature to put a tax on dogs—We would recommend a similar course in every election district in the State—The amount of loss of valuable sheep, by worthless dogs, if it could be accurately ascertained, would astonish the people of the State—and we have no doubt, if the subject was at once taken up, and such statistics given as would throw light upon the subject before the members of the Legislature, some remedy might be devised by which the evil could in some degree be remedied. We observe that this subject is now before the Ohio Legislature. A correspondent of the Ohio Cultivator, estimates that not less than 1000 head of sheep per year are destroyed in the county in which he resides (Tuscaroras,) and that the aggregate loss to the farming community in the State, is not less than $50,000 per year. He adds:

A tax of 25 cents for the first dog, and 50 cts. or $1 for each additional one kept by one family, would doubtless do something towards paying these losses, and preventing their recurrence hereafter. If sporting gentlemen complain of the tax, and claim credit for the foxes they kill, let a bounty be given for fox scalps, and if they can't catch foxes enough to pay their dog tax, they had better kill their dogs.

☞Since the above was written, we have received from J. Carroll Walsh, Esq., a copy of the petition alluded to, and copy it for the purpose of giving a form for adoption in other counties. Mr. Walsh intended to have presented the subject for the consideration of the Maryland Farmers' Club, and it will probably be brought before the members at the next meeting.

To the Honorable the General Assembly of Maryland.

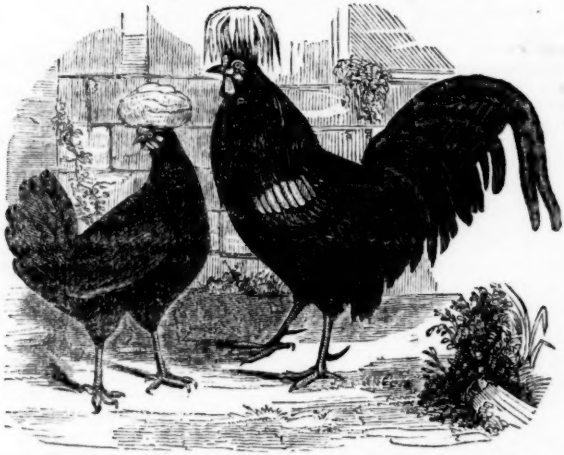
The undersigned, citizens of County, believing that a proper attention on the part of the agricultural community of the State to the growth of sheep would tend in a great measure to increase not only the wealth of the Farmer and Planter, but add also to the resources of the State, respectfully petition, that a law be enacted, authorising a tax to be levied upon all Dogs, as experience has fully shown that the most grievous losses incurred by the raisers of sheep, have been occasioned by the destruction of their stock by Dogs. And that the proceeds of said tax, should be appropriated to the remuneration of those who may have their sheep destroyed by being killed by Dogs. Your petitioners would respectfully refer your Honorable Body, to the example of our neighbor State of Pennsylvania, in which a tax similar to the one prayed for by us, has been in successful operation for several years, and under which the growth of sheep has been fostered and materially increased. Your petitioners would also call the attention of your Honorable Body, to the fact, that by appropriating any surplus of this fund, that might be left in the treasuries of the several counties, after paying for all losses of stock, killed by Dogs, to the payment of the public debt of the State, that a three-fold beneficial purpose would be obtained by the passage of such a law as is prayed for by your petitioners, viz:—1st. It would tend to the encouragement of Sheep. 2nd. It would diminish the number of worthless Dogs. 3rd. It would assist in paying the debt of the State.

Trusting your Honorable Body will give a favorable consideration to the above, your petitioners will ever pray, &c. &c.

Sheep vs. Dogs.—It may seem almost incredible to some, but we have it from a source that can be relied on, that during the last five or six months, at least *two hundred* sheep have been killed by dogs, within the limits of Urbana township alone. This is a serious grievance, and one, too, that should be remedied, if it is within the power of the Legislature to do it. In the language of the petition which is now being circulated in this county, 'so far as this community is concerned, the question must now be settled, which branch of business must yield to the other'—the raising of sheep or dogs.—*Urbana (Ohio) Citizen and Gazette.*

DORKING FOWLS.

THE POLAND FOWLS.



'THE DORKING is a valuable and favorite variety in England, and takes its name from a town in the county of Surrey, where the breed is supposed to have originated, and where, and in its vicinity, they are still said to be found in great plenty and perfection. They have been but little known and scarce in this country until within a few years.

'In size,' Mowbray says, 'they rank in the third degree, in the largest of our fowls; well shaped, having a long capacious body and shortish legs, and should have five claws on each foot. This is a distinctive mark, but of no advantage, but probably tracing their origin to the Poland; as it is said a Poland cock with a common white hen will occasionally produce a similar bird. The absence of a fifth claw is not, however, considered a proof of a spurious breed. The genuine color is of an ivory white; the flesh is good flavored, of a yellow or ivory shade, and highly esteemed.

'From the specimens we have seen, we have no reason to believe that *color* is any criterion of purity. The first we ever saw was a pair presented to us by Dr. Wright of Boston, which he imported. The hen was of an ivory white, and the cock was a lead or hawk-colored fowl. Since then, we have seen some bred by Mr. Allen of Black Rock, and Mr. Chapman, of New York, which were of various colors, but generally speckled. Our portraits were sketched by Mr. Rotch, from specimens in his yard, one of which was imported.

'A gentleman in Boston, who has paid considerable attention to the rearing of poultry, says, "so far as my experience has gone, the Dorkings are *decidedly* the best breed for laying; the eggs come abundantly, and are of the largest size, except when they have been bred 'in-and-in,' too much. (See Walker on "Intermarriage," article on fowls.) I have already seen the effect, and therefore hope to receive a new lot of Dorkings during the summer."

'L. E. Allen says, in the American Agriculturist,

"the Dorking is a fine large bird, weighing, when at maturity, five to eight pounds. They are large bodied, and of better proportion, according to their size, than any breed I have yet seen; their bodies being very long, full, and well fleshed in breast and other valuable parts. They are short-legged, thickly feathered, with fine delicate heads, both double and single combs, and a shining beautiful plumage. The color of their legs is white, or flesh-colored, having five instead of four toes, the fifth being apparently superfluous, and rising like a spur from the same root as the heel toe in the common varieties. They are most excellent layers, good and steady sitters, and kind careful nurses. Their color is various—from nearly white to almost black, many of them beautifully variagated. They are the capon fowl of England, and are bred in great quantities for the luxurious tables of the wealthy classes in the counties about London. In America they are a scarce bird. I never saw one till the fall of 1841, when a friend by whom I sent, brought me out half a dozen from England; and although they were but chickens when they arrived, and from their long confinement on the voyage, miserably poor, and full of vermin, they rapidly improved, commenced laying during the winter, and have thus far exceeded any other fowls I ever kept, in their good qualities. The young have proved very hardy, and easy to rear. The males, of which I imported two, are large strong birds, and the hens are all I could desire of them. Their eggs are of a large size, clear, white, and excellent in quality. For capons, they no doubt exceed all other fowls whatever, often weighing, full grown, ten or twelve pounds. This variety I have determined to keep for my own purposes."'

'The Poland Fowls, as they are generally called, were, according to English authors, said to be imported from Holland. Their color is a shining black, with a white top-knot of feathers on the heads of both cock and hen. The head is flat, and surmounted by a fleshy protuberance, out of which spring the crown of feathers or top-knot, white or black, with the fleshy King David's crown, consisting of four or five spikes. They are not thickly covered with feathers as some other breeds, and still less so with down. The true breed is rather above the middling size; their form is plump and deep, and the legs of the best sorts are not too long, and most have five claws. The top-knot of upright, white feathers, covers so much of the head as almost to blind the eyes; indeed some require clipping, or they would become an easy prey to the hawks. The contrast of this perfectly white crest with the black plumage, is truly beautiful; but the top-not of the cock differs from his hen, hers being broad and erect feathers, while his are narrow and hanging down in every direction, but they must be perfectly white, and the rest of the plumage perfectly black; broken colors, it is said by some, show a cross breed.

'Mowbray says, 'the Polanders are not only kept as ornamental, but they are of the most useful varieties, particularly on account of the abundance of the eggs they lay, being least inclined to sit of any other breed, whence they are sometimes called *everlasting layers*, and it is usual to set their eggs under other hens. They fatten as quickly as any other breed, and in quality similar to the Dorking; their flesh perhaps more juicy and of a richer flavor.' They are a quiet, domestic fowl, neither quarrelsome nor mischievous, and their eggs of good size, fine flavored and thin shells. Mowbray states that his five Poland hens, in eleven months, laid five hundred and three eggs, weighing, on an average, one ounce and five drams, exclusive of the shells, making a total weight of 50¼ pounds.

'The Poland is,' says L. F. Allen, in the American Agriculturist, 'a shining black in color, with a beautiful white tuft on its head, a medium size, a good layer, seldom sitting to hatch. rather tender to rear while a chicken, and more thinly feathered and not so hardy in colds and storms as the common hen. In a great part of the United States it will thrive successfully, and lay as many eggs as any other fowl, perhaps more. Its flesh is good. On the whole, a handsome and profitable fowl. There is a white variety, without a feather of any other color. These are very beautiful, but not quite so hardy as the black. There is also a splendid gold and black, or pheasant colored variety. These are scarce in the United States. I have seen several beautiful specimens imported from England; but was never able to obtain any for breeding. These colors are more propagated by the poultry-fanciers than others, and are seldom to be had of them.'

'Mr. Giles, of Providence, who has paid considerable attention to the subject of poultry, in a letter to the author says, "if *eggs* is the only object in view, then as far as my experience goes, the Poland fowls are the best layers, seldom if ever wanting to sit."'—*Bement's American Poulterer's Companion.*

AUGER FOR BORING POST HOLES.

This labor saving machine introduced by Mr. Geo. Page, of this city, has been in use for several years and has given general satisfaction. It will do three times as much work as is performed in the old way —It has been used in the erection of the poles for the Telegraph between this city and Washington, and is now being used for a similar purpose at Boston.—It may be extended so as to excavate drains or dig wells, and any other work of a like character —The price of it is $5.

Mr. George Smith, of Munsont, two miles distant, had in one night last week 36 sheep killed and wounded. Several were dead when found, others badly wounded were butchered, in all 23, and one has died since.—*Geauga (Ohio,) Rep.*

BONE MANURE.

The following article from a correspondent of the New England Farmer, will commend itself to every enlightened agriculturist. And we would take occasion to remark, that the suggestion contained in the last paragraph but one, is worthy of attention—the facilities of communication with our city are such, that large quantities of bones might be brought to this city at a very small expense, and we have reason to believe that the market would be permanent, as the owner of the mill in this city, is not able to keep pace with the demand for the crushed bones. We should suppose that a good business might be carried on in many of the towns, in having the bones which are now thrown upon the commons, gathered for this purpose.

Any one at all familiar with the English agricultural papers and journals for the last few years, cannot but be forcibly struck with the vast amount of bones annually used in England, and the high value attached to them there as a manure, compared with their estimation in our own country. It is probable that from the much greater length of time their soil has been cultivated and grazed, there has been a much larger amount of phosphates drawn from it, and that the application of bone manure is attended with more striking and beneficial results than upon our own more recently cultivated lands. Yet I think there can be no doubt in the minds of any one familiar with the properties and uses of bone manure, that its application to many of our soils and crops, would be very efficient and useful.

Fresh bones consist of phosphoric acid, lime, gelatine, oil or fat. Rather more than one half the weight of dry bones, consists of phosphate of lime, combined in the proportion of 51½ per cent. of lime and 48½ of phosphoric acid.

The bones of all animals are derived from the food they subsist upon—and as all our food is primarily drawn from the earth, consequently the materials for the bones are derived or drawn from the soil.

A farmer raises upon his farm a yoke of large oxen: the materials for the bones have been derived from the grass, hay, and grain grown upon his farm. There has been, then, drawn from his soil, phosphate of lime sufficient for the formation of the bones of his oxen, and as the oxen are generally sold and driven to a market, his farm is deprived of so much phosphates as are contained in the bones—but the phosphate of lime in the bones of an ox is but trifling compared with what they have consumed in their food during their lives, and which has been voided in their excrements—especially in the liquid part; and from the utter neglect of most farmers to save this part of the manure, the larger portion of the phosphate in the excrements, is lost to his farm. In pursuing such a course, the time must come, sooner or later, when much of our land shall cease to make remunerating returns in crops, for the want of phosphate of lime.

But the muscle (lean meat) contains 2¼ per cent. of phosphate of lime, and in every ten gallons of milk there is three-quarters of a pound of saline matters, a larger portion of which are combined with phosphoric acid.

From some facts that have come under my observation within a few years past, I am led to believe there is already a very great deficiency of phosphate of lime in our old pastures. Nature, as instinct, seems to point out to animals, in many instances, what is necessary for their health. Phosphate of lime is one of those necessary elements, and our old pastures have doubtless ceased to yield in the grass the amount of phosphates required for all the purposes and wants of cows when in milk. To supply this deficiency, the animals instinctively fall to eating every bone they can find, and it is doubtless the bone earth (phosphate of lime) ready manufactured, that causes this unnatural appetite of a herbivorous creature for animal matter, or bone.

Occasional application of ground bones to these old pastures, would undoubtedly improve the quantity and quality of the grass, the cows would cease to hanker after bones, their health and fattening properties would be improved, as also the quantity and quality of their milk. And, reasoning from analogy, we may safely conclude that the application of bone manure to old pastures, where calves and young cattle are kept, would be attended with the best results.

The quantity of bones required to manure an acre, is very much less than was formerly thought necessary in England. By some of the county agricultural reports, published by the Board of Agriculture in England, in 1813, it appears that bone manure then was used in many of the counties—and then, 60, 80, and 100 bushels per acre was used; but at the present time, 16, 20, or at most 24 bushels per acre is the greatest quantity used. But within the last year or two, it has been ascertained that from two to four bushels of bone-dust dissolved in about half its weight of sulphuric acid, has as good an effect, or will give as large a crop of turnips as the larger quantities above named.

Professor Johnston has taken a very deep interest in this matter, and has written several articles on the subject; and the many experiments that have been made, and the results published in the London Gardeners' Chronicle, within the last two years, seems to place the fact beyond doubt or cavil. And Mr. Colman, in his third report upon European Agriculture, says, "The application of sulphuric acid to bones, seems as yet to be the only well established case of the application of chemical science to the improvement of practical agriculture upon scientific principles."

In the year 1827, the importation of bones into England amounted to over 40,000 tons, and Mr. Huskinson then estimated their value at more than £100,000 sterling, and the importation has been much greater since that time. They are imported into England from every quarter of the world, and the English agents are employed in this country, in the purchase of them.

It is probable that bones, like guano, might fail here, in our hot and dry summer (like the past,) of producing such visible results as are recorded in the English agricultural journals, but the same remark will apply to other manures.

I have read Mr. Haggerston's account of the application of crushed bones upon Mr. Cushing's farm, as published in Mr. Colman's Fourth Report on the Agricultural Survey of Massachusetts. They proved a failure in Mr. H.'s experiments upon corn and potatoes. But Mr. Haggerston says, "From experience, I know that the effects of manures are so variable on different soils, that what is beneficial on one farm, is of no use on another, as in the case of bone manure with us. I have known land where no manure could be used with a quarter of the benefit that bone-dust was, and its not having the desired effect on this farm, ought not to militate against it in the

least. By chemical analysis of soils, you can come generally to the result at once, and I believe it to be the only true way of determining the propriety or expediency of one application or another."

To the above sensible remarks, I think every intelligent farmer must respond a hearty *amen*. But it will be a long time before farmers generally will be at the expense of obtaining chemical analyses of their soils, and those who wish to be "sure they are right before they go ahead," must pursue the course your Smithfield, R. I., correspondent, "C. B." did, whose interesting experiments are published in the N. E. Farmer, of the 24th ult. They should try experiments upon a small scale. He has come to the conclusion, that sulphuric acid and bones are "the best manure for turnips in drills," and I have no doubt but hundreds of other farmers would come to the same conclusion, if they would make the experiment. But the hauling of carboys of oil of vitriol might prove rather an awkward affair in the hands of the ignorant and unskilful, and they might perchance get their fingers burnt.

Some persons, perhaps, may ask the question—where are farmers in the country to obtain bones for manure? With what little effort and care, considerable quantities might be collected about every village—and at the slaughter houses; piths of horns from the tan-yards—the bones of dead horses, &c.: and as three or four bushels when dissolved in sulphuric acid, are sufficient for an acre, it would not require much time or labor to obtain enough for several acres, in many parts of the country.

Some may think it a small business to collect bones, for manure; but Dr. Franklin, or some one else, says, "He that will not stoop for a pin, may yet stoop for a lesser thing." But it is not so small a business, for Professor Johnston states, that by the application of acid and bones, "clover has been increased one half; and its effects on wheat, have been marked, when used as a top-dressing. Wheat, without a top-dressing of this substance, yielded 29½ bushels; with a top-dressing, 53 bushels, or nearly double."

ETRURIAN WHEAT.

A few days ago, we were politely favored with the following letter from Capt. G. N. Diehl, of the firm of Diehl & Brother, merchants of this city:—*Phila. Saturday Courier.*

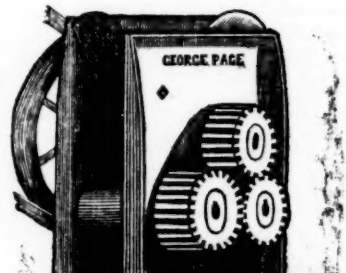
Philadelphia, Dec. 19th, 1845.

GENTLEMEN.—Having heard of the superior quality of the Stewart or Etrurian Wheat, imported into this country by Commodore Charles Stewart, and of its valuable properties, not possessed by any other Wheat I have ever heard of—that of ejecting the Hessian Fly, and its non-susceptibility to rust—I was induced, in the fall of 1843, to purchase a small quantity from the Commodore, which I sent to a relative of mine, near Port Penn, Delaware, with the view of testing its quality and comparative product with that of Wheat generally grown in that section. It is perhaps proper to observe (as the character of soil in the State of Delaware varies from the heaviest clay to the lightest sandy,) that the soil upon which this Wheat was sown is of a *cold clayey nature, and not above mediocrity in quality*. I requested my friend to sow it in the same field with his other Wheat, giving it no advantage whatever. This was done; and the yield of the Stewart Wheat was at the rate of 32½ bushels to the acre; at the standard of 60 pounds to the bushel; while his other wheat in the same field, only produced 15 bushels to the acre as the average yield. His entire sowing, in the fall of 1844, was of the Stewart Wheat, which also produced 32½ bushels to the acre, at the standard weight, and, if nicely cared for, would have yielded from 33 to 34 bushels.

I think this test sufficiently establishes the superior character (the quality is also most beautiful) of the Stewart Wheat. In my opinion, it is the very best seed in the country, as it is adapted to any climate and to any soil. Every farmer should supply himself with this seed, as the adavntages, pecuniarily, would be considerable, and to the country immense. The excess, as per statement above, at the present price of Wheat, say $1,30 per bushel, would very nearly pay for the land. Respectfully yours,

(Signed) G. W. DIEHL.

PAGE'S CORN & COB CRUSHER IMPROVED,



For crushing corn and cob into meal sufficiently fine to feed to horses or any other kind of stock. To say that this article is of incalculable value to the agriculturist, is but to speak its just meed of praise, as by its use, the great amount of feed contained in the cob of the corn, can be rendered not only available, but available in a form, which brings all its nutritious properties to that state best calculated to impart strength and condition to the animal fed upon it. By the process of distillation it has been proved, that the *cob* of corn contains two-fifths as much nutritive matter in it as the grain itself, so that by the reduction of the former for purposes of feeding, that quantity of grain may be sold over and above what is usually, or can be done where the cob is not thus converted into feed.

A word as to the power of this machine. It will, with two-horse power, crush 200 bushels a day, with ease, with four-horse power, or more, its capacity may be doubled. It will save its cost in the first season; it is strong, compact and durable, and with care, will last a life time.

Besides its adaptation to crushing corn and cob, it will *reduce corn stalks sufficiently fine* to enable them to be fed out as fodder; in fine, it will make every ton of corn stalks equal to so much *hay* for cattle feeding. Of its advantage in this respect, nothing need be said, as every farmer and planter can make his own calculations with respect to the importance of the economy. The price of the Machine is $45.

LADIES' DEPARTMENT.

EXTRACT FROM AN ADDRESS

Before the Newcastle (Del.) Agricultural Society, by Hon. Jona. Roberts, of Penn.

"The plan of your Society and Institute, so far as my knowledge goes, is original. No where else has the whole series of rural, domestic and useful arts been brought into exhibition, as we have witnessed them to be here. It is not a mere show of stock and field culture. Here a great variety of tastes may be gratified and pleasurable feelings awakened, little connected with the mere love of gain. Hard-handed labor can relax its vigor to mingle with that delicacy, refinement and grace, which woman can shed over every scene where her presence is afforded. No moral purpose can reach its best result, in which her hand and mind have not had participation.

For what end were flowers made to bloom, of every form and tint, redolent with fragrance? Surely not all to be wasted on the desert air. Eden still blooms for those who delight in the culture of the garden. It is there alone flowers reach their greatest perfection.

It is not to gratify the senses of seeing and smelling only that Divine goodness has provided: the crabs and wildings of nature have become our delicious fruits by the art of culture. The grove and the shrubbery give shade and invite the feathered tribes to comfort and shelter, who reward us with their melody.

While labor ministers a rich repast to all our senses, it gives health to realize the full fruition of enjoyment.

Woman, in her right place, ought not to be, and cannot be, exempt from care and labor. Within my memory, she assisted in the field to gather in the harvest. Now, she has employments better suited to her character, and which demand for her mind a higher culture than was called for when her task was mere drudgery.

A taste and fondness for plants seems inherent in woman; they become dear and interesting, though silent friends. They can exercise the best affections without disturbing the passions.

Who can look upon the doors and windows of the humblest cottage, shaded and embellished with plants, and not feel respect for those who inhabit it?

Plants aid to effect a great moral purpose, in softening the heart and soothing and tranquilizing the mind.

A little care and attention, compatible with every condition, will surround us with foliage and flowers through every season, and put smiles on the sternest winter."

There is something in beauty, whether it dwells in the human face, in the pencilled leaves of flowers, the sparkling surface of a fountain, or that aspect which genius breathes over its statue, that makes us mourn its ruin. I should not envy that man his feelings who could see a leaf wither or a flower fall without some sentiments of regret. This tender interest in the beauty and frailty of things around us, is only a slight tribute of becoming grief and affection; for nature in our adversities never deserts us. She even comes more nearly to us in our sorrows, and, leading us away from the paths of disappointment and pain into her soothing recesses, allays the anguish of our bleeding hearts, binds up the wounds that have been inflicted, whispers the meek pledges of a better hope, and, in harmony with a spirit of still holier birth, points to that home where decay and death can never come.—*Constantinople.*

WIFE.

Of all the titles, woman fair—
Dear woman—here can ever bear—
Though *all* are holy words to me,
With holy thoughts and things—
Yet *one* among them ever brings
Such gushing feelings on its wings,—
Such memories of Love and Care—
Of Trust and Faith in days that were—
Of Hope and Joy for time to come—
Of Truth—of Chastity—and Home,
That of all others, *that* I feel,
I love the best, in woe or weal;
It is not Sister—Lover—Bride;
'Tis dearer far than all beside!
In all the chequered ways of life,
Her hand in mine, I'll whisper *Wife.*

The box-plant is a good deal like a woman. You've only got to trim it into a shape at first, and what a little trouble makes it always keep it.—*Jarrold.*

Bad men have always the lowest opinion of women. They mar God's fair work through their own base selfishness, and impiously pronounce it not good.

FLORICULTURE.

WORK FOR FEBRUARY.

PREPARED FOR THE *American Farmer* BY SAML. FEAST, *Florist.*

Azaleas will now be blooming and should be liberally supplied with water.

Pelargoniums in small sized pots will need repotting and plenty of air and water; those in large sized pots should receive occasionally a little guano water.

Camellias will now be in full bloom—give plenty of water and wash the leaves occasionally with a sponge, to remove insects, dust, &c., as nothing tends more to their beautiful appearance than cleanliness. Repotting should be attended to, as soon as the bloom is over.

Achimenes—the bulbs of this beautiful genus should now be potted, in small pots, in a light sandy peat.

Verbenas, Calceolarias, Fuchsias, Cinerarias, &c., in small pots, will require repotting into a larger size.

Cactuses will need a little water this month.

Hyacinths in pots, coming into bloom, should be well watered.

Lilium Lancifolium, and its varieties should be planted into pots, if not done last month.

Roses should have plenty of fresh air, and if infested with green fly, fumigation with tobacco.

Carnations, Pansies, &c., in frames should receive air every fine day.

The seeds of *Pansy, Phlox Drummondi, Stock gilliflower, Calandrinia and Tropæolum* should be sown in pots for early bloom.

Hotbeds, for the sowing of tender annuals, for early bloom, should be prepared the latter part of the month.

Attend to pruning and training of hardy Roses, shrubbery, &c.

The Carnation.—The request of a correspondent upon the subject of the propagation of the Carnation shall be attended to.

ARNON BAKER'S PATENT GATES.

We have seen this gate in use, and believe it peculiarly worthy the attention of the farmers and planters of this State.

FIG. 1.

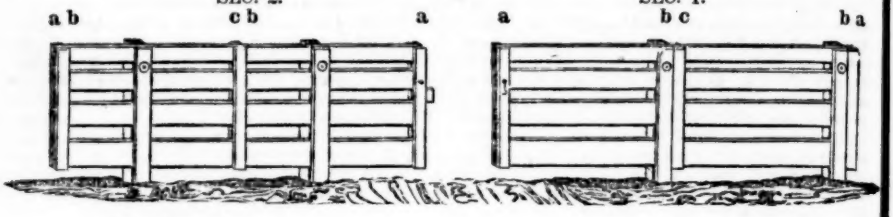


FIG. 2.

a a Gate.
b b Roller Posts.
c Cross-bar.
o Rollers.

The great advantage to be secured by the use of the above gate is *cheapness of construction*, as they can be made and set at *one-half the expense of any other Gate of equal durability.* The actual cost of these Gates over and above the expense of two lengths of board fence will not exceed seventy-five cents. Farmers are referred to the above cut and explanatory table, which will enable any man who can use the saw and square to construct one in accordance with the plan.

The above described Gate may be seen at Ezra Whitman's Agricultural Warehouse, Baltimore. He is the sole Agent for the State of Maryland.

From the Farmers' Cabinet.

BROADCAST AND DRILLED WHEAT.

At the present period, when the price of agricultural produce of every description is so reduced, it becomes of great importance to the farmer to look around and see whether he cannot increase the produce of his soil without increasing his expenses. This is particularly needful in raising wheat From some causes, perhaps not well understood, the wheat crop has become, in Eastern and Atlantic States, exceedingly precarious.

Our wheat, even when not attacked by enemies—such as rust or fly—has been gradually diminishing in the amount raised to the acre. The report of the Farmers' Club of New York states that the quantity has decreased there from 30 to 10 or 15 bushels per acre. This diminution is owing, probably, to the land being gradually robbed of the chemical constituents of the wheat, by sending the grain away, while we retain the straw to make food to supply succeeding crops; hence, if we put on enough of this kind of manure, we may raise large crops of straw, but not grain in proportion. And further, as if we thought we had yet too much grain, we have our manure yards so planned, that the saline part (which are the most important in the formation of the grain, and which are soluble in water) have every facility to enable them to be washed away by repeated showers.

But is our present method of planting or sowing wheat the most likely to insure the largest yield? This is what I now wish to speak of. In the work of Jethro Tull, (the father of thorough tillage,) printed about one hundred years ago, he states that, while other farmers were sowing two or three bushels of wheat to the acre, and reaping only fifteen or twenty bushels, he drilled about half a bushel in three rows, about eight inches apart, in the middle of six feet wide lands, and usually obtained about 40 or 50 bushels per acre—and this without the aid of much or any manure. This success he attributed to tilling the land while the wheat was growing. He turned the furrow with what he called his hoe plough, alternately from and to the rows of wheat, like many who use the plough are in the habit of tilling their corn. In the spaces of eight inches between the rows, the ground was loosened by hand hoeing.

This plan, though not adapted to American farming, for the reason that, generally, we wish grass to follow our wheat crop, was yet deemed sufficiently plausible to determine us to give a fair trial to the drilling, in comparison with the broadcast plan. Accordingly, in the fall of 1843, our field (the clover being all ploughed under, and a light dressing of manure—about ten one-horse cart loads to the acre—being spread on the surface) was nicely harrowed. We commenced at one side, sowed broadcast about six acres, with two bushels of seed to the acre. In about a week afterwards, we were furnished with a drill by our enterprising neighbor, John Jones, of Bohemia Manor, who owned the only wheat drill in the State of Delaware. Commencing on the 20th of the 9th month, we drilled about 27 acres, putting in about 10 acres a day, with one bushel and one peck of seed to the acre. The cost of the drill (including the services of one man and one horse) was 50 cents an acre, though two horses were required to

work the drill. All the wheat, both drilled and broadcast, stood the winter well. To appearance, the broadcast looked best; it appeared thicker, both in the fall and in the spring. The drilled wheat by our neighbors generally was pronounced too thin, and was considered by them a failure.

In the 4th month the weather was very dry and warm, which seemed unfavorable for wheat. It appeared to stop it from stooling sufficiently, causing it to shoot up prematurely, and too thinly; but when the heads were formed, there was a manifest difference between the length of the drilled and broadcast—those on the drilled wheat being decidedly longer. The whole crop was free from rust or fly, excepting along one head land, which had been eaten off by cattle when about one foot or 18 inches in height, where we found the fly in abundance—showing certainly, that insects are most likely to attack those plants whose powers have been impaired; thus teaching farmers that the most likely way to avoid the fly, and even rust, is to keep their plants, by all known means, in as healthy a condition as they possibly can; for where one field of vigorous wheat will be destroyed by the fly or rust, ten will be which are either put in badly, or are too poor.

Previous to harvest, we had five acres carefully measured with the chain and compass, by W. Pennington, the surveyor of the neighborhood, assisted by John Jones.

The surveyor was present when the wheat was cradled, and saw that each acre had its due share. It was put away in separate mows, and threshed separately and the grain all measured.

Nos. 1 and 2. Two acres of the broadcast surveyed together—

Two bushels of seed to the acre;
Seventy-five shocks;
Fifty-five bushels of wheat, or 27½ bushels to the acre.

No. 3. One acre drilled, adjoining the above; the land, if any different, rather inferior; treated exactly alike—

One bushel and one peck of seed to the acre;
Forty-two shocks;
Thirty-five bushels.

No. 4. One acre drilled, a little distant from No. 3—

One bushel and one peck of seed;
Forty-two shocks;
Thirty-five bushels.

No. 5. One acre drilled, a little distant from No. 4—

One bushel and one peck of seed;
Fifty shocks;
Forty bushels to the acre.

Here we see that, by the use of the drill alone, (the soil being in the same, or perhaps an inferior condition,) the crop was increased 7½ bushels per acre, and, adding the amount saved in the seed, (3 pecks,) make 8 bushels and 1 peck to the acre; and further, that the amount of straw on the drilled acre, with a smaller quantity of seed sown, increased 12 per cent.; and the amount of grain on the same acre was increased more than 27 per cent.

It may be proper here to state, that the whole field (between 36 and 40 acres) was manured and treated alike; although, from causes existing previously in the soil, some parts of the land, being naked and barren, was more denuded than others. The surface soil, being washed away, did not yield as well as other parts. I suppose that, without the clover and manure, the field would not have averaged more than 3 bushels—certainly not 5 bushels to the acre.

The drill used was invented and made by M. Pennock & Sons, of Kennet Square, Chester county, Penn., the inventors of the revolving horse rake. Seven rows, about 8 inches apart, are planted by it at one time, about 3 inches in depth; the planters stand perpendicular; their points, projecting forward, produce small furrows, similar in shape, but deeper than those made by the teeth of the cultivator. The wheat, thus growing in the bottom of the furrow, is protected from the bleak winds of winter, and the fine earth, pulverized by the frosts, fills up the furrows by spring, and nourishes the young plants.

Our own convictions have been sufficiently strong upon the above experiment to cause us to purchase a drill, or, as it should be called, a wheat and corn planter—for it plants either equally well—for our own use; with which we have put in, this fall, the entire field of wheat, containing about 40 acres.

Respectfully,
CHARLES NOBLE.

Philadelphia, 10th month, 1844.

P. S. The acre yielding 40 bushels of wheat, it will be seen, I have not compared with the broadcast in their per centage yield, because of their distance apart; supposing that the difference of yield might have been owing to some difference in soil.

RULES FOR THE APPLICATION OF GUANO.

1. If intended for drill husbandry, or to be used in the hill, it should be mixed in the proportion of 1 part guano to 4 or 5 parts of woody earth, or mould, or any other fertile earth, or thoroughly decomposed manure—or 1 part guano, 1 part ashes, and 3 parts rich mould or well-rotted manure.

2. It is best for the above purposes, not to let the mixture come in immediate contact with the seed.

3. For broadcast application, it may be sown as plaster is after it shall have been reduced into powder, either by itself, or in compost, as prescribed in rule No. 1. Whether used alone or in compost, it should be sown and harrowed in after the crop may have been sown and ploughed in.

4. It may be sown in compost after a crop may have come up.

5. It is a good and highly fertilizing manure for all descriptions of crops, whether grain, grass, or roots; and if properly used, will not only increase the quantity of the product, but improve the quality also.

6. For root crops, 200 pounds used in compost, as named in rule No. 1., is sufficient, for an acre of ground; and the same would be sufficient for an acre of corn, if used in the drill or hill.

7. For wheat, rye, oats, barley, tobacco, or any of the grass crops, from 200 to 300 pounds, according to the quality of the land, will be found sufficient for an acre.

8. It should, if possible, always be applied in *wet* weather, and covered lightly with either plough or harrow. Where neither of these modes may be practicable after sowing guano, the roller should be applied.

9. In applying it to old meadows, or meadows which may have been set for some time, it should be harrowed in and then rolled.

10. If convenient, plaster may be very advantageously used with it, in the proportion of 1 bushel of plaster to 100 pounds of guano.

11. In applying it to grass lands and meadows, the month of April would be the most suitable period, as a great object is to dissolve it, in order that its virtues may promptly come in contact with the roots of the plants. It may, however, be used at any *wet* season.

12. Any compost made of guano should remain a few days before being used.

13. Where liquid applications of guano may be desirable, as on tobacco beds, or in gardens, 1 pound of guano dissolved in 4 gallons of water will comprise a most enriching manure. The sediment remaining, if any, may very advantageously be used with an equal quantity of water as at first used.

14. Where plaster cannot be obtained to incorporate with guano, a most excellent substitute may be found in pulverized charcoal, to be used in the same proportion as plaster.—*Report of H. L. Ellsworth, late Commissioner of Patents, June* 1845.

☞We regret to learn that the precarious state of the health of Jas. Gowen, esq. of Mt. Airy, has induced him to decline being a candidate for re-election as first vice-president of the Philadelphia Society for the promotion of Agriculture. Mr. G's. valuable services will continue to be bestowed in behalf of the objects of the society, so far as the state of his health, which it is hoped will not continue long to be impaired, will enable him so to do.

MAP OF TEXAS, OREGON, CALIFORNIA, &c.—We have received from the publisher, Mr. A. Mitchell, of Philadelphia, a most beautiful map of Texas, Oregon and the adjoining countries, accompanied with a pamphlet of 46 pages, containing much information respecting the same. This map is peculiarly valuable at the present time, presenting as it does at one glance all that vast region of country which is now attracting, with such intense interest, the attention of the people of the U. S. Believing it would be much in demand, we have ordered a number of copies, which are on sale at our bookstore. It is in a form suitable for the pocket, and can be sent by mail at an expense of about 4 cts. for postage. Price of the Map with the description, 62 cts.

METEOROLOGICAL TABLE, FROM 27TH DECEMBER, TO THE 28TH JANUARY.

Kept at Schellman Hall, near Sykesville, Carroll co. Md. Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock, p.m.

	Wind.			Temperature.			Remarks.
27	W	W	W	13	33	31	Clear
28	W	W	SW	27	37	32	Clear
29	W	S	S	30	47	38	Clear
30	SW	S	S	34	46	38	Cloudy Clear
31	W	W	SW	30	41	34	Clear
1	W	SW	SW	23	40	34	Clear, Cloudy
2	SW	W	W	48	55	45	Rain 1-2 in.wat. fell Clear
3	W	W	W	28	45	32	Clear
4	W	W	S	31	41	35	Clear
5	W	S	S	23	45	35	Clear
6	W	N	NE	27	35	36	Cloudy, Hail, Rain 1 1-2 in. wa.
7	W	W	W	40	44	40	Cloudy, Foggy, Clear,
8	W	W	W	38	44	36	Clear
9	W	W	W	37	39	37	Clear, Snow, Clear,
10	W	W	SW	29	38	34	Cloudy, Clear
11	W	W	W	32	39	33	Cloudy Clear,
12	W	W	W	28	36	31	Clear
13	NW	NW	S	25	39	29	Clear
14	W	SW	SW	20	44	36	Clear
15	SE	SE	SE	24	49	43	Clear, Cloudy
16	NE	N	N	27	40	35	Rain 1-2 inch
17	W	W	W	34	41	33	Clear, Cloudy, Snow 1-2 inch,
18	W	NW	NW	12	21	18	Clear
19	W	W	W	15	31	13	Clear
20	W	W	SE	13	28	25	Cloudy, Snow,
21	NE	N	S	21	31	20	Snow, 4 inches, Cloudy
22	NW	NW	N	21	32	25	Clear
23	N	N	NW	11	35	23	Clear
24	NW	W	W	11	44	23	Clear
25	W	SW	SW	33	51	41	Clear
26	SW	SW	SW	43	56	49	Cldudy, Clear
27	SW	NE	W	43	39	35	Cloudy, Drizzling, Rain, Clear
28	NW	SW		31	50		Clear.

ONE pair Ostrich Fowls, two years old, at $5—One or two pair pure White Guinea fowls, very rare and beautiful, at $8—Several Black Java Cocks, from three to 5 months old, $2.50—One or two pairs same, (per pair,) $4—Several pairs of Montevidean Muscovy Ducks, very large and fine.

Apply (letters post paid), to S. SANDS,
Jan.1 Publisher American Farmer.

Baltimore Market, February 30.

The arrival of the Hibernia steamer from Liverpool, in the last week, has caused a decline in Breadstuffs —It is now said that the Potato crop in Ireland will not be so bad as was feared, and the price of grain in England does not warrant the same rates which have heretofore been asked in this country.

Flour, Howard st. prior to the arrival of the steamer was $5, which, however, was nominal, as buyers and sellers were waiting the arrival of the Hibernia. Offers have since been made at $4.75 from stores, which were acceded to—The last sales from wagons were at $4.75, but the receipt price is unsettled—the receipts have been to a fair extent, but the present inactivity in the article will probably prevent millers and farmers from hastening their flour into market. *Susquehanna*, $4.87, stock limited, and no sales during the past week. In *City Mills*, a decline has also been submitted to, of 12½ cts. per bbl., a sale having been effected at $4.75. *Rye* Flour $4.12—*Corn Meal*, sales at $3.50 pr.bbl. for Balt. and $3.45 for Penn. It is worth $1.50a1.55 per 100 lbs.—*Buckwheat*, dull, $2 a2.37 per 100 lbs.—*Wheat*, owing to the unfavorable weather, has not come in very freely, for a week past; the decline in flour, has, of course, caused a decline in wheat—We quote good to prime reds at 95a106 cts. and ordinary to good at 90a95c. but purchasers are buying moderately at those prices.—White wheat for family flour is worth 104 to 106—*Corn*, receipts limited, Md. white 60a61, and yellow 62a63 —Pa. yellow 64—*Rye*, sales at 68a70, litile in market. —*Oats* 39a40—*Peas*, 50a58c—*Beans*, 87a$1.12, small stock in market—*Flaxseed*, $1.25 to $1.28—*Clover-seed*, $6, sales for best samples, old $5.50—*Timothy*, stock light, ready sales of good at $2.50 to $2.75—Mess *Pork*, new, $14a$15; prime $12a$12.50; mess *Beef*, $10a$10.50; No. 1, $8.50a$8.75; prime $6a$6.50 —sales of Western *Pork* at $14, cash—*Beef Cattle*, last sales, prices ranged from $2 to $3.25 per 100 lbs. on the hoof, equal to $4a6.25 nett; averaging $2.68 on the hoof—last Monday 525 head were in market, 297 of which were sold, as above, 90 head drove to Philadelphia, 33 for Washington, and the remainder left over unsold—moderate sales have since taken place at the above rates, and the remainder is good; the quality of the stock left in market was not of the best.—*Hogs*, supply fair, sales at $5.25 to $5 62; choice lots bring the latter price—small lots of killed hogs sold at $5.12 to $5.50 per 100 lbs.—*Bacon*, sales of new Western assorted at 7a7½c., of Balt. sides 7¼c.; Western Hams, 8¼a8½c—sales of old shoulders at 6c. —Lard, sales of No. 1 Western in kegs, 7¼a7⅜; market firm; receipts light, and the above prices will be maintained—*Butter*, good roll 12½c. kegs 10½c., demand light, and stocks heavy—*Herrings*, No. 1, $3,-62½; *Shad*, $6a6.50; *Mackerel*, No.1, $12.50; No. 2, $7,-50a7.75, and No 3, $4.50a4.75, with small sales—*Cod fish*, 2¼a3c. per lb.—*Apples*, $2 to $3, according to kind and quality—*Cotton*, a better feeling is manifested since the arrival of the steamer—sales have been made in last week of Ala. 8⅜; upland 8 3-8a8⅜; Mobile 9¼; and N. Carolina 8c.—*Coffee*, Rio, 7 7-8a8¼—*Wood*, hickory $5.50a6; Oak $4.75a5; pine $3a3.50—*Coal*, stone $5a6 per ton, scarce—*Feuthers*, 24a28—*Hay* has declined during the last week; Timothy, best $16 per lb.—*Hemp*, Russia $210 per lb.; Manilla 7a-7½c. per ton; water rot 6½ to 7¼c. and dew rot 4a5½c. *Hops*, limited sales at 25c. per lb.—*Molasses*, stock small, N. Orleans, 27½a28c in bbls—*Turpentine*, 70c. per gall.; *Tar*, $2a$2.25 per bbl. and *Rosin* $1a1.25; Winter Sperm *Oil*, 102c. per gall.; fall do. 98; La-

seed 64c.—*Plaster*, ground $1.12 per bbl. in stone $3,-12a3.25 per ton—*Potatoes*, Maine mercers, are selling at $1.25 by retail in the market, and $1 by larger quantity; they are in good demand—*Rice*, $4.87a5 per 100 lbs., demand moderate—*Whiskey*, 25c in bbls;—24c. in hhds—*Sugar*, N. O. new crop, $5.50a6, the range of the market—*Tobacco*, a few hhds. of the new crop received, but as the season for selling has not arrived, there is but little doing—we quote from latest sales, Md. frosted $1.50a2, com. to good and middling $2a5; good 5.50a7; fine $7.25a14; Ohio, com. to mid. $2.25a4.50; good $5a6; fine red and wrappery$6.50a10; fine yellow $7.50a11; ex. wrap. $11a13.

BOMMER'SMETHOD.—The public is respectfully referred to the following among other testimonials which will be placed before them, in favor of this method of making manure:

BALTIMORE COUNTY, July 10, 1845—I hereby certify that Mr. John Gouliart in Feb. 1843 put up a heap composed of straw, cornstalks, weeds, &c. according to the Bommer Method, on the farm of Mr. D. M. Perine (of said farm I am Manager.) In due time the heap was opened, and I found the mass to be entirely decomposed and the manure of good quality—since that time I have set up two heaps without the assistance of Mr. Gouliart, and found that I succeeded as well if not better than in the first—I applied the manure on corn, timothy, turnips, &c. and I freely state that it has proved itself equally as good as the best stable or yard manure on the farm.

WELLS BOWEN, Manager for Mr. D. M. Perine.

All Letters must be post paid, addressed to JOHN GOULIART, General Agent for the State of Maryland; Residence, Baltimore, Madison Street, 132. feb.1

AGRICULTURAL WORKS for sale at the Bookstore attached to the office of the AMERICAN FARMER, 122 Baltimore st. where orders will be received for any agricultural works, or periodicals published in the U. States:

Downing's Fruits and Fruit Trees of America,	$2 00	Fresenius' chemical analysis, edited by Liebig	75
Do cottage residences,	2 50	Affleck's Bee Breeder	25
Kenrick's American Orchardist,	1 00	Livingston on sheep	37
Farmers&Graziers'Guide	37	Weeks on Bees	50
Bigland's History of Animals	50	*Davy's Agricul. chemistry	4 50
The Gardener & Florist	50	Youatt's Treatise on cattle	3 50
Fessenden's Amer. Gardener	75	Parley's cyclope. of Botany	1 50
Hitchcock's Geology	1 00	Ellsworth's swine breeder	1 00
Buel's Farmers' compan.	1 00	Mowbray on Poultry	1 00
Liebig's Animal chemistry	1 00	*Sinclair on Grasses	10 00
Do Agricultural do	1 00	*Do code of Agriculture	7 00
Do Familiar Letters	12	American Forest Trees	2 00
Skinner's Clayter on horses	50	Dana's Muck Manual	50
Do cattle Doctor by Clater and Youatt	50	*London Gardener's Mag.	1 50
Johnson's Agri. chemistry	1 50	*Hayward on Horticulture	3 00
Amer. Farm. Encyclope'a	3 75	Youatt on the horse, edited by Skinner	2 25
*Hogg on the carnation	2 75	Amer. Poulter's compan'n	1 25
Prince on the Vine	1 50	Boussingault's Rural Econ.	1 50
*Sweet's Botany, plates	5 50	Farmers & Emigrants book	1 00
*Nuttall's do	2 00	Morrell's Ameri. Shepherd	1 00
D. Lee Child on Beet Sugar	75	Bevan on the honey bee	75
Manning's Book on fruits	75	Buist's Rose Manual	75
Parley's Ornathology	75	Skinner's cattle and sheep Doctor	50
Bridgman's Young Gardener's Assistant,	2 00	Knowison's Complete Farrier	25
Do abridged,	50	The Farmer's Mine,	75
Gaskins' Farmer's Guide	75	Hannam's Economy of waste Manures	25
Hinds' Groom's Oracle	1 00	Tracts on Agriculture	1 50
Faulkner's Farmers' Manual	75	Gregory's Liebig's Animal Chemistry,	37
Hinds' Farrier,	75	Pedder's Land Measurer,	50
Mason's Farrier,	1.25	Complete Gardener & Florist,	50
Wiggins' Farmer's Instructor,	1.50	Donn's Cat'logue of Plants,	1.00
Downing's Landscape Gardening and Rural Architecture,	3.50	Journal of a Naturalist	1.00
Haynes on soils, and composts.	50	Agricultural Almanacs,	12

Other works will from time to time be added—Back vols. of the American Farmer, bound or in sheets, for sale.

Subscriptions received for Skinner's Farmer's Library, $5 pr annum, or 50 cts. single No.; the Farmers' Cabinet, the American Agriculturist, Albany Cultivator, Southern Planter, each $1; the New York Farmer & Mechanic, weekly at $2 per ann. and all other agricultural works, at publishers prices.

* Those marked thus * are English editions. feb. 1

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planters; Portable Tobacco Press; Portable Grist Mills complete, $125.

The "Simon pure," and invincible WILEY PLOW still in the field—A. G. MOTT, at No. 38 ENSOR STREET, near the *Bel-Air Market*—Manufacturer and Vender of Implements of Husbandry, viz. *Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters*, Endless chain *Horse Powers, Threshing Machines, &c. &c.*—through this medium, would apprize the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY PLOW (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about *two cents* per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his Implements good as the best, and cheap as the cheapest, *for Cash*, and delivered in any part of the city free of charge—Plow castings by the piece or ton; old Implements repaired on the most reasonable terms. Orders addressed to A. G. MOTT, Baltimore, will receive prompt attention. dec. 1

EZRA WHITMAN'S AGRICULTURAL WAREHOUSE, *No. 55 LIGHT STREET*, BALTIMORE.

The proprietor of this establishment is the sole agent in the city of Baltimore, for the sale of the following new and valuable improvements, viz:—Whitman's improved Railway Horsepower and Thrashing Machine—Prouty & Mears Boston Centre Draught PLOUGH, and Subsoil do.—Wm. Hovey's Premium STRAW CUTTER—J. T. Grant's Premium FANNING MILL—W. & B. Douglass' premium PUMPS—Jacob Peoyer's MILL for Cutting and Grinding Corn Fodder—Aaron Baker's new patented GATE—And a general assortment of the latest and most approved AGRICULTURAL IMPLEMENTS constantly on hand, and all kinds of REPAIRING DONE at short notice.

Whitman's new Improved Railway Horsepower, with wrought Iron railway and fastnings. *Cash Price*, Two Horsepower $100, One Horse do., $75. More than 1000 of these celebrated Horsepowers are now in use in the United States for thrashing grain and driving various kinds of machinery. It is a fact, as many of our best Farmers will testify, that my One Horsepower will thrash as fast as many of the four Horse machines, also that they are easier for the Horse, and being made of wrought Iron they are much more durable.

Jan. 1. EZRA WHITMAN, JR.

PREMIUM PLOW!

We call the attention of Farmers to our "MARYLAND SELF-SHARPENING PLOW," which is now in general use and highly esteemed, either for the roughest or clean land. At the late Prince George's Agricultural Fair it received the highest premium notwithstanding the array of the best Boston, New York and Maryland plows against which it had to contend. R. SINCLAIR, JR. & CO., MANUFACTURERS,

dec 1 62 *Light Street.*

STRAW CUTTERS.

THE subscriber has on hand 20 11 inch—15 13 inch—6 15 inch, and 2 20 inch, of his Patent Cylindrical Straw Cutters, made in the very best manner, and equal to any machines for the same purpose, in this or any other country, and are adapted to every kind of long forage, straight or tangled, coarse or fine, which he offers for cash at about first cost of making. These Machines will be found invaluable to all such persons who are short of forage for their stock, as there is, beyond doubt, a saving of at least one-third by cutting it fine for feeding. J. S. EASTMAN,

Jan. 1. 180 Pratt street.

LIME—LIME——The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM-STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25 per bushel, in hhds., or at $1 per bbl. E. J. COOPER,

Jul/. City Block, Baltimore.

GUANO—The subscribers have received from N. York, a large supply of this celebrated manure, imported into that port in the bark Caroline Amelia from Chila, and is equal to any ever brought to this country. It is in the original bags of about 150 pounds each, and will be sold by the bag or larger quantity at $50 per ton of 2240 lbs. A liberal deduction made to those taking several tons. For sale in quantities of 5 tons or upwards, by F. & W. RODEWALD, Buchanan's whf.

☞Orders for smaller quantities than 5 tons supplied by SAMUEL SANDS, at the office of the *American Farmer*, 122 *Baltimore street, near North street.* Fe 1

TO MILKMEN AND MARKET GARDENERS.

To persons in either of these lines, possessing sufficient cash capital, and a reasonable amount of established custom, inducements will be offered to engage in either or both, on a scale commensurate to the demand for the articles.

The place is within three miles of Baltimore, easily accessible by a good road, and the soil is admirably adapted to both purpuses.

It is already well stocked, and supplied with every convenience for the Dairy business; having a large stone spring house, and an Ice house filled, at a convenient distance from the farm house.

It is proposed to divide the premises, into two or more small garden and dairy farms, if desired by applicants, or to rent the whole together. Apply at the American Farmer Office, for further particulars. Feb. 1.

NEW YORK AGRICULTURAL WAREHOUSE—Having taken the commodious store No. 187 Water st. the subscriber is now opening the largest and most complete assortment of Agricultural Implements of all kinds ever offered in this market. Most of these are of new and highly improved patterns, warranted to be made of the best material, put together in the strongest manner, of a very superior finish, and offered at the lowest cash prices.

SEEDS FOR THE FARMER—such as improved winter and spring Wheats, Rye, Barley, Oats, Corn, Peas, Beans, Ruta Baga, Turnip, Cabbage, Beet, Carrot, Parsnip, Clover and Grass Seeds, improved varieties of Potatoes, &c. &c.

FERTILIZERS—Peruvian and African Guano, Poudrette, Bone dust, Lime, Plaster of Paris, &c.

FRUIT & ORNAMENTAL TREES & SHRUBS—Orders taken for these, and executed from a choice of the best nurseries, gardens and conservatories in the United States.

WIRE CLOTHS & SIEVES—Different kinds and sizes of these to be had at all times.

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Scotch Kale, cape Brocoli	Ex. Early Peas
Early York cabbage	Dwarf marrow do
Bullock's heart do	do Imperial do
Sugar loaf Savoy do	Tall marrow do
Drum head do	Pepper ass'd
Flat Dutch do	Scarlet Radish
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Large white field carrot	Salsafy
Cauliflower	Spinach
Celery assorted, Pepper Grass	Best kinds squash
E cluster cucumber	Tomato
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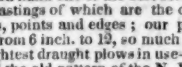
PULVERIZATION.  DECOMPOSITION.

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